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PRELIMINARY ASSESSMENT/ VISUAL SITE INSPECTION

NORTHERN INDIANA PUBLIC SERVICE COMPANY
BAILLY GENERATING STATION
CHESTERTON, INDIANA
IND 000 718 114

FINAL REPORT

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Waste Programs Enforcement
Washington, DC 20460

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EPA Region	:	5
Site No.	:	IND 000 718 114
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contains recycled fiber and is recyclable

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EXECUTIVE SUMMARY

PRC Environmental Management, Inc. (PRC), performed a preliminary assessment and visual site inspection (PA/VSI) to identify and assess the existence and likelihood of releases from the solid waste management units (SWMU) and other areas of concern (AOC) at the Northern Indiana Public Service Company Bailly Generating Station (NIPSCO) facility in Chesterton, Porter County, Indiana. This summary highlights the results of the PA/VSI and the potential for releases of hazardous wastes or hazardous constituents from the SWMUs and AOCs identified. In addition, a completed U.S. Environmental Protection Agency (EPA) Preliminary Assessment Form (EPA Form 2070-12) is included in Attachment A to assist in prioritizing RCRA facilities for corrective action.

NIPSCO uses the facility to supply electrical energy to the northern part of Indiana. The facility generates electricity using two coal-fired high-pressure steam boilers, each connected to a steam turbine generator. The facility currently generates the following hazardous waste streams: boiler chemical cleaning waste (D007); waste mineral spirits (D001); central laboratory wastes (D001); waste 1-1-1 trichloroethane (F001); and spent freon (F002). The facility currently generates the following nonhazardous waste streams: bottom ash; fly ash; air heater wash; boiler chemical cleaning rinsate; precipitator wash; coal handling maintenance waste oil; plant waste oil; Pure Air system wastewater; Pure Air system filter cake; Pure Air waste oil; industrial wastewater; industrial wastewater treatment plant sludge; asbestos insulation; coal crusher scrap; coal handling maintenance runoff; polychlorinated biphenyls (PCB)-laden waste; unit No. 10 waste; and ethylene glycol solution. The facility formerly managed spent hydrochloric acid boiler cleaning waste (D002).

NIPSCO has owned and operated the facility since 1962 and has been the only operator of the facility. The facility occupies 350 acres in an industrial area and employs about 180 people, 24 hours a day. The facility is bordered on the north by Lake Michigan; on the west by Bethlehem Steel Corporation; on the south by U.S. Can Company and Route 12; and on the east by Indiana Dunes National Lakeshore (Indiana Dunes). The facility is currently regulated as a large-quantity generator of hazardous waste. NIPSCO submitted a Notification of Hazardous Waste Activity form to EPA on August 18, 1980 as a generator, transporter, and as a treatment, storage, or disposal (TSD) facility of hazardous waste. NIPSCO submitted a RCRA Part A permit application on November 18, 1980. The facility submitted an EPA container storage closure request form for the container storage areas (SWMUs 8 and 9) in November 1985. In September 1986, the Indiana Department of Environmental Management (IDEM) approved the closure of these areas and notified NIPSCO that its Part A permit application had been withdrawn.

The PA/VSI identified the following 27 SWMUs and one AOC at the facility:

Solid Waste Management Units

1. Fly Ash Silo
2. Bottom Ash Pond
3. Bottom Ash Waste Pile
4. Settling Ponds
5. Secondary Settling Pond No. 2
6. Industrial Wastewater Treatment Plant
7. Container Storage Area (CSA)
8. Former CSA No. 1
9. Former CSA No. 2
10. Coal Handling Maintenance Waste Oil Tank System
11. Plant Waste Oil Tank System
12. Pure Air Wastewater Treatment Plant
13. Pure Air Waste Oil Tank
14. North Landfill
15. South Landfill
16. Chemical Cleaning Fractionator Tanks
17. Pure Air Filter Cake Hopper
18. Fly Ash Waste Piles
19. Former Filter Cake Waste Pile
20. Former Waste Oil Underground Storage Tank (UST)
21. Unit No. 10 UST
22. Asbestos Hoppers
23. Central Laboratory Satellite Accumulation Area (SAA)
24. Former Boiler Room SAA
25. Coal Scrap Pile
26. Coal Handling Maintenance Surface Impoundment
27. Boiler Units No. 7 and 8

Areas of Concern

1. Empty Drum Storage Area

Receptors of potential releases from the NIPSCO facility include NIPSCO employees and nearby residents. The nearest residences are less than 0.25 mile south of the facility along Route 12. Facility access is controlled by an 8-foot-high fence and 24-hour surveillance system.

The nearest surface water body, Lake Michigan, is located adjacent to the facility property, north of the facility and is used for multiple purposes. Other surface water bodies in the area include the Little Calumet River, located about 0.5 mile south of the facility.

The City of Chesterton and surrounding area's water supply is taken from Lake Michigan. Intakes are located 3 miles from the shoreline, however, ground water is used as a private water supply by some residences about 0.25 mile south of the facility along Route 12.

Sensitive environments are located on site. About 100 acres of the facility consists of bogs and low-lying grassy meadows that are adjacent to the Indiana Dunes. One endangered plant species, Pitcher's thistle, inhabits Porter County.

Soil contamination was noted around the secondary containment area of SWMU 10 and around the stand pipe of SWMU 21. Standing virgin oil and oil stains were noted on the ground surface in AOC 1. Waste was placed directly on soil in SWMUs 2, 3, 4, 5, 14, 15, 18, 19, 25, and 26 constituting a release by operation. The potential for release to on-site soils from the remaining SWMUs is low. SWMUs at the facility have secondary containment or are on concrete floors that are undrained.

Because of soil contamination in SWMUs 10 and 21 and AOC 1, and release to on-site soils by operation from the above SWMUs, the potential for release to ground water is moderate. The exposed soil may be contaminating the shallow, glacial, ground-water aquifer because soils at the facility are quite permeable.

The potential for release to surface water from SWMUs 2 and 4 is moderate because these units discharge directly to Lake Michigan in accordance with National Pollutant Discharge Elimination System (NPDES) requirements. The potential for release to surface water from the remaining SWMUs and AOC is low. Outdoor drainage at the facility is minimal given the permeable soils of the facility. Most SWMUs are located over 500 feet from Lake Michigan. Drainage from the coal handling maintenance area is managed by SWMU 26.

The potential for release to air from SWMU 18 is moderate. PRC observed large amounts of dust being produced during the deposit of waste in this unit during the VSI. Also, waste stored in this unit is fly ash and may be carried off site during periods of high wind. The potential for release to air from the remaining SWMUs and AOC is low. Wastes managed in these units are solid. The facility managed volatile and hazardous wastes in sealed containers.

Based on the PA/VSI, PRC recommends ground-water monitoring around SWMUs 2, 3, 4, 14, 15, and 26 to see if hazardous constituents are in the ground water. Ground-water monitoring should be conducted around SWMU 5 to determine the extent of contamination along with removal of the source or contaminated soils. Contaminated soil from SWMU 10 should be excavated and properly disposed, the excavation sampled to verify that contaminated soils were removed, and then the excavation should be filled with clean soil. SWMU 11 should be inspected by the facility to verify that releases have not occurred. Soil sampling should be conducted around SWMUs 18, 19, and 25 to see if hazardous constituents are in the soils. Subsurface soils around SWMU 20 should be sampled to show no contamination. Soils surrounding the stand pipe

of SWMU 21 should be removed and replaced with clean soil and the unit should be leak tested. Contaminated soil from AOC 1 should be excavated, the excavation should be sampled to verify that contaminated soils were removed, and then the excavation should be filled with clean soil, and also, inverted drums should be stored over a containment pan. Along with the above recommendations, the need for ground-water monitoring should be evaluated for SWMUs 10, 18, 19, 20, and 21, and AOC 1.

1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC), received Work Assignment No. C05087 from the U.S. Environmental Protection Agency (EPA) under Contract No. 68-W9-0006 (TES 9) to conduct preliminary assessments (PA) and visual site inspections (VSI) of hazardous waste treatment and storage facilities in Region 5.

As part of the EPA Region 5 Environmental Priorities Initiative, the RCRA and CERCLA programs are working together to identify and address RCRA facilities that have a high priority for corrective action using applicable RCRA and CERCLA authorities. The PA/VSI is the first step in the process of prioritizing facilities for corrective action. Through the PA/VSI process, enough information is obtained to characterize a facility's actual or potential releases to the environment from solid waste management units (SWMU) and areas of concern (AOC).

A SWMU is defined as any discernible unit at a RCRA facility in which solid wastes have been placed and from which hazardous constituents might migrate, regardless of whether the unit was intended to manage solid or hazardous waste.

The SWMU definition includes the following:

- RCRA-regulated units, such as container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, and underground injection wells
- Closed and abandoned units
- Recycling units, wastewater treatment units, and other units that EPA has usually exempted from standards applicable to hazardous waste management units
- Areas contaminated by routine and systematic releases of wastes or hazardous constituents. Such areas might include a wood preservative drippage area, a loading or unloading area, or an area where solvent used to wash large parts has continually dripped onto soils.

An AOC is defined as any area where a release of hazardous waste or constituents to the environment has occurred or is suspected to have occurred on a nonroutine and nonsystematic basis. This includes any area where a strong possibility exists that such a release might occur in the future.

The purpose of the PA is as follows:

- Identify SWMUs and AOCs at the facility
- Obtain information on the operational history of the facility
- Obtain information on releases from any units at the facility
- Identify data gaps and other informational needs to be filled during the VSI

The PA generally includes review of all relevant documents and files located at state offices and at the EPA Region 5 office in Chicago.

The purpose of the VSI is as follows:

- Identify SWMUs and AOCs not discovered during the PA
- Identify releases not discovered during the PA
- Provide a specific description of the environmental setting
- Provide information on release pathways and the potential for releases to each medium
- *Confirm information obtained during the PA regarding operations*, SWMUs, AOCs, and releases

The VSI includes interviewing appropriate facility staff; inspecting the entire facility to identify all SWMUs and AOCs; photographing all visible SWMUs; identifying evidence of releases; making a preliminary selection of potential sampling parameters and locations, if needed; and obtaining additional information necessary to complete the PA/VSI report.

This report documents the results of a PA/VSI of the Northern Indiana Public Service Company Bailly Generating Station (NIPSCO) facility (EPA Identification No. IND 000 718 114) in Chesterton, Porter County, Indiana. The PA was completed on December 2, 1992. PRC gathered and reviewed information from the Indiana Department of Environmental Management (IDEM) and from EPA Region 5 RCRA files. The VSI was conducted on December 3, 1992. It included interviews with facility representatives and a walk-through inspection of the facility. PRC identified 27 SWMUs and two AOCs at the facility.

PRC requested information regarding SWMUs and waste management practices in a letter dated December 11, 1992 (PRC, 1992a). The NIPSCO facility was unable to provide PRC with

the information requested on various SWMUs and waste management practices. Information requested and not obtained from the facility is indicated in each section below.

PRC completed EPA Form 2070-12 using information gathered during the PA/VSI. This form is included in Attachment A. The VSI is summarized and 29 inspection photographs are included in Attachment B. Field notes from the VSI are included in Attachment C.

2.0 FACILITY DESCRIPTION

This section describes the facility's location; past and present operations; waste generating processes and waste management practices; history of documented releases; regulatory history; environmental setting; and receptors.

2.1 FACILITY LOCATION

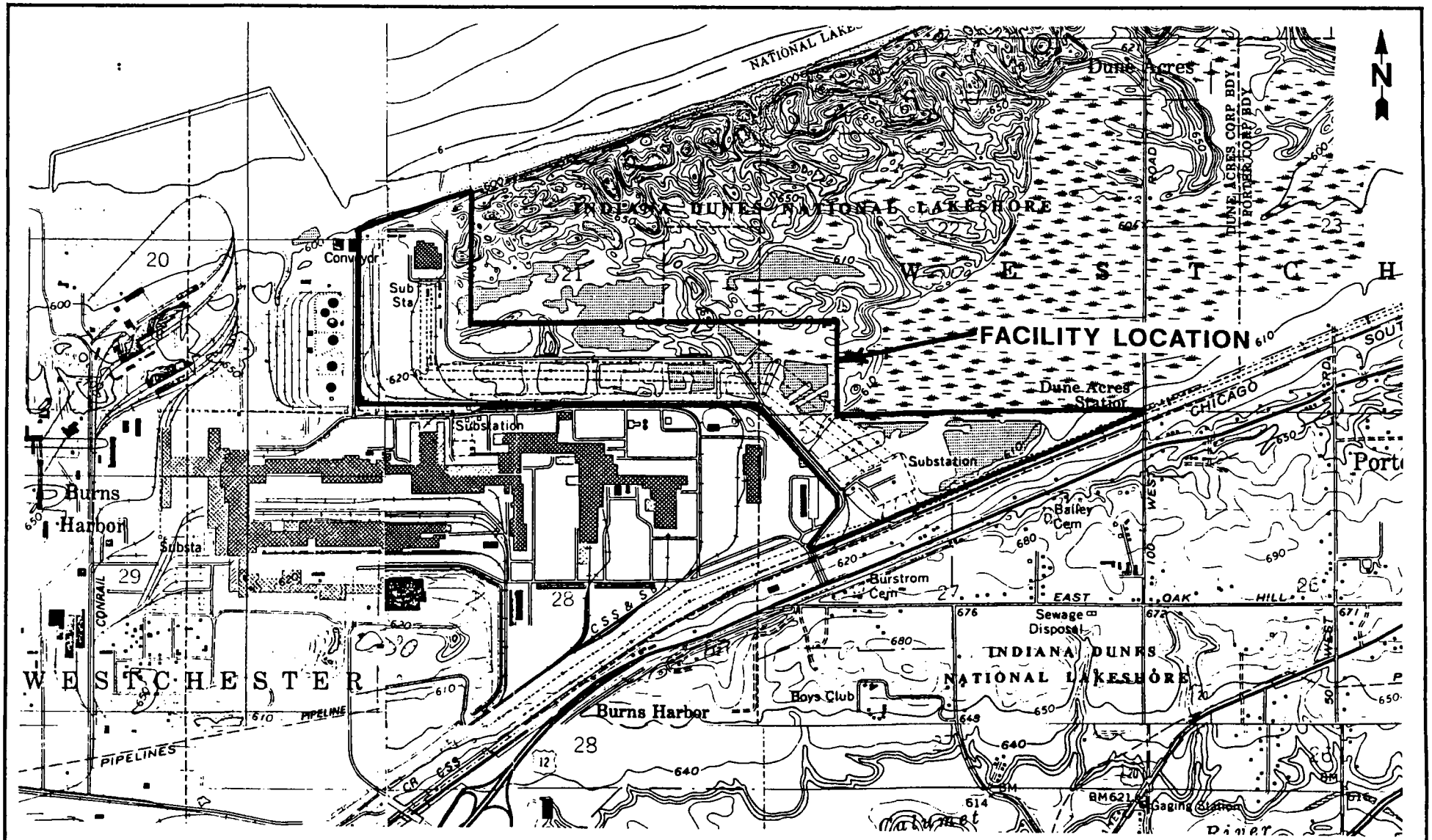
The NIPSCO facility is located at 246 Bailly Station Road in Chesterton, Porter County, Indiana. Figure 1 shows the location of the facility in relation to the surrounding topographic features (latitude 41°38'40" N and longitude 87°05'20" W). The facility occupies 350 acres in an industrial area.

The facility is bordered on the north by Lake Michigan; on the west by Bethlehem Steel Corporation; on the south by U.S. Can Company and Route 12; and on the east by Indiana Dunes National Lakeshore (Indiana Dunes).

2.2 FACILITY OPERATIONS

NIPSCO uses the facility to supply electrical energy to the northern part of Indiana. The facility generates electricity using two coal-fired high-pressure steam boilers, Boiler Units No. 7 and 8 (SWMU 27), each connected to its own steam turbine generator. A third generator (Unit No. 10), which burns natural gas or fuel oil, is used during peak electrical demand. NIPSCO owns and operates the facility and has been the only operator of the facility. The facility consists of about 300,000 square feet of buildings, offices, and production areas. NIPSCO employs about 180 people, 24 hours a day.

The facility began commercial operation in 1962 using Boiler Unit No. 7, which is rated at 194,000 kilowatts of power. Boiler Unit No. 8 began operation in 1968 and is rated at 414,000 kilowatts of power. Coal, which is burned in the two boilers, is delivered to the plant in railroad cars and unloaded into large hoppers located beneath the railroad tracks. The coal is then conveyed by belt to the crusher house, where it is crushed into pieces that are no larger than 0.25 inch. Coal is also stockpiled outdoors on the ground surface on the west side of the facility. This coal pile is about 200 by 500 feet in area and can store enough coal for about 45 days of power generation. The crushed coal is conveyed inside the building and placed in two 2,900 ton-storage bunkers until needed. The facility consumes over 4,000 tons of coal per day.



SCALE 1:24000

QUADRANGLE LOCATION

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

SCALE 1"=2,000'

SOURCE: MODIFIED FROM USGS, OGDEN DUNES, PORTAGE, DUNES ACRES, CHESTERTON QUADRANGLES, 1968

NORTHERN INDIANA PUBLIC SERVICE COMPANY
BAILLY GENERATING STATION
CHESTERTON, INDIANA

FIGURE 1

FACILITY LOCATION

PRC ENVIRONMENTAL MANAGEMENT, INC.

The facility obtains the water used during plant operations from Lake Michigan. The facility is capable of using 300,000 gallons of lake water per minute. This water is used to cool and condense steam. The resulting non-contact cooling water and boiler blowdown are discharged directly to Lake Michigan in accordance with National Pollutant Discharge Elimination System (NPDES) requirements.

Bottom ash and industrial wastewater are sluiced to the Bottom Ash Pond (SWMU 2) and the Settling Ponds (SWMU 4), respectively. After settling, these waters are directed to a forebay that either recirculates the water for plant use or discharges the water to Lake Michigan. Other wastewaters that may require additional treatment beyond settling are directed to the Secondary Settling Pond No. 2 (SWMU 5). Wastewaters from this unit are treated in the Industrial Wastewater Treatment Plant (SWMU 6) and discharged to the forebay.

Flue gas from the boiler units is passed through electrostatic precipitators that are attached to each boiler. Precipitator dust, called fly ash, is deposited in enclosed hoppers and pneumatically piped to the Fly Ash Silo (SWMU 1). Before June 1992, emissions from the electrostatic precipitators were exhausted directly to the atmosphere through a 400-foot-high stack.

NIPSCO contracted Pure Air to supply flue gas desulfurization services. In June 1992, Pure Air began operating its Advanced Flue Gas Desulfurization System on the far north end of the facility. NIPSCO leases Pure Air about 4 acres on which this system sits. Pure Air owns and operates the Advanced Flue Gas Desulfurization System; however, NIPSCO is responsible for the system's influent and effluent streams. Pure Air is a joint venture of Air Products and Chemicals, Inc., and Mitsubishi Heavy Industries America, Inc.

The Pure Air Advanced Flue Gas Desulfurization System (Pure Air System) is a single loop process in which quenching and sulfur dioxide removal are performed simultaneously in the absorber. The absorbed sulfur dioxide is neutralized using limestone in an absorber tank. This process forms a by-product called, gypsum. NIPSCO sells the gypsum to U.S. Gypsum in Chicago for use in wall boards. The facility flushes the Pure Air system's absorber tank with water to reclaim gypsum. Wastewater is generated when the resulting slurry is dewatered. This wastewater goes to the Pure Air Wastewater Treatment Plant (SWMU 12) for treatment before being mixed with NIPSCO's discharge at Outfall 001. Pure Air continuously monitors the treated water before it is mixed with NIPSCO's discharge. After desulfurization, the treated emissions from the electrostatic precipitators are exhausted to the atmosphere through a new 500-foot-high stack.

2.3 WASTE GENERATION AND MANAGEMENT

This section discusses facility waste generation and management. The facility's SWMUs are identified in Table 1. The facility layout, including SWMUs and AOCs, is shown in Figures 2 and 3. The facility's current and former waste streams are summarized in Table 2. The following paragraphs discuss waste generating practices at the facility. Information that the facility was unable to provide is indicated below.

Coal is burned by the Boiler Units No. 7 and 8 (SWMU 27) to generate steam. Inert material in the coal that is not burned within the boiler units is piped from the units as furnace slag. Water is mixed with the furnace slag to cool and solidify it. This process generates nonhazardous bottom ash. The water and bottom ash slurry is piped to the Bottom Ash Pond (SWMU 2) for dewatering. Bottom ash is allowed to settle in SWMU 2, while the overflow is discharged to the Settling Ponds (SWMU 4). When necessary, SWMU 2 is drained, and the bottom ash is removed by a front end loader. The bottom ash is then placed in the Bottom Ash Waste Pile (SWMU 3) for bottom ash dewatering. About 42,600 tons of bottom ash is generated annually. Between 1962 and 1986 bottom ash was placed in the North and South Landfills (SWMUs 14 and 15). Currently, the state of Indiana uses this material as a subgrade for roadways or the facility disposes of the waste off site. The facility was unable to specify where the waste is currently sent.

Nonhazardous fly ash is generated during the combustion of coal. Fly ash is carried out of the boiler unit with the flue gas, and electrostatic precipitators are used to remove the fly ash particles from the flue gas. Fly ash is deposited in the bottom of the electrostatic precipitators and pneumatically piped to the Fly Ash Silo (SWMU 1). About 27,800 tons of fly ash is generated annually. Before 1980, fly ash was mixed with recycled water and the slurry piped to the Bottom Ash Pond (SWMU 2) and the Settling Ponds (SWMU 4); fly ash was then removed from SWMU 2 by a front end loader and placed in the Bottom Ash Waste Pile (SWMU 3) for dewatering. Between 1962 and 1986 fly ash was placed in the North and South Landfills (SWMUs 14 and 15). Fly ash is also generated from cleaning of boilers and ducts. Vacuum trucks are used to collect this waste. The contents of the vacuum trucks are emptied in the Fly Ash Waste Piles (SWMU 18). The facility was unable to specify how or where the fly ash is currently being disposed of.

TABLE 1

SOLID WASTE MANAGEMENT UNITS

SWMU Number	SWMU Name	RCRA Hazardous Waste Management Unit[a]	Status
1	Fly Ash Silo	No	Active
2	Bottom Ash Pond	No	Active
3	Bottom Ash Waste Pile	No	Active
4	Settling Ponds	No	Active; removed from facility's Part A
5	Secondary Settling Pond No. 2	No	Active; removed from facility's Part A
6	Industrial Wastewater Treatment Plant	No	Active; removed from facility's Part A
7	Container Storage Area (CSA)	No	Active for less than 90-day storage
8	Former CSA No. 1	Yes	Underwent RCRA closure
9	Former CSA No. 2	Yes	Underwent RCRA closure
10	Coal Handling Maintenance Waste Oil Tank System	No	Active
11	Plant Waste Oil Tank System	No	Active
12	Pure Air Wastewater Treatment Plant	No	Active
13	Pure Air Waste Oil Tank	No	Active
14	North Landfill	No	Inactive
15	South Landfill	No	Inactive
16	Chemical Cleaning Fractionator Tanks	No	Inactive; removed from facility's Part A
17	Pure Air Filter Cake Hopper	No	Active
18	Fly Ash Waste Piles	No	Active
19	Former Filter Cake Waste Pile	No	Inactive

TABLE 1

SOLID WASTE MANAGEMENT UNITS

(continued)

SWMU Number	SWMU Name	RCRA Hazardous Waste Management Unit[a]	Status
20	Former Waste Oil UST	No	Removed in November 1988
21	Unit No. 10 UST	No	Active
22	Asbestos Hopper	No	Active
23	Central Laboratory Satellite Accumulation Area	No	Active
24	Former Boiler Room Satellite Accumulation Area	No	Inactive
25	Coal Scrap Pile	No	Active
26	Coal Handling Maintenance Surface Impoundment	No	Active
27	Boiler Units No. 7 and 8	No	Active; removed from facility's Part A

Note:

[a] A RCRA hazardous waste management unit is one that currently requires or formerly required submittal of a RCRA Part A or Part B permit application.

TABLE 2
SOLID WASTES

Waste/EPA Waste Code[a]	Source	Solid Waste Management Unit[b,c]
Bottom ash/NA	Boiler units	SWMUs 2, 3, 4, 14, and 15
Fly ash/NA	Boiler units	SWMUs 1, 2, 3, 4, 14, 15, and 18
Air heater wash/NA	Cleaning boiler units	SWMUs 4, 5, and 6
Boiler chemical cleaning waste/D007	Cleaning boiler units	SWMUs 4, 5, 6, 16 and 27
Boiler chemical cleaning rinsate/NA	Cleaning boiler units	SWMUs 4, 5, 6, 16, and 27
Precipitator wash/NA	Cleaning precipitator	SWMUs 4, 5, and 6
Coal handling maintenance waste oil/NA	Heavy machinery maintenance	SWMU 10
Plant waste oil/NA	Maintenance	SWMUs 11 and 20
Waste Mineral spirits/D001	Parts washers	None
Pure air system wastewater/NA	Flue gas desulfurization	SWMU 12
Pure air system filter cake/NA	Flue gas desulfurization	SWMU 17
Pure air waste oil/NA	Pure air system maintenance	SWMU 13
Industrial wastewater/NA	Production and maintenance activities	SWMUs 4 and 5
Industrial wastewater treatment plant sludge/NA	Industrial wastewater treatment plant	Unknown
Asbestos insulation/NA	Boiler units	SWMU 22
Coal crusher scrap/NA	Crusher house	SWMU 25
Coal handling maintenance runoff/NA	Storm water management	SWMU 26
PCB-laden waste/NA	Electrical equipment	Unknown

TABLE 2

SOLID WASTES

(continued)

Waste/EPA Waste Code[a]	Source	Solid Waste Management Unit[b,c]
Unit No. 10 waste/NA	Unit No. 10	SWMU 21
Ethylene glycol solution/NA	Air heater	None
Central laboratory wastes/D001	Central laboratory	SWMUs 7, 8, 9, and 23
Waste 1,1,1-trichloroethane/F001	Degreasing	Unknown
Spent freon/D002	NPDES requirements	SWMUs 7, 9, and 24
Boiler blowdown	Boiler units	None
Spent hydrochloric acid boiler cleaning waste/D002[d]	Different NIPSCO facility	SWMUs 5 and 6

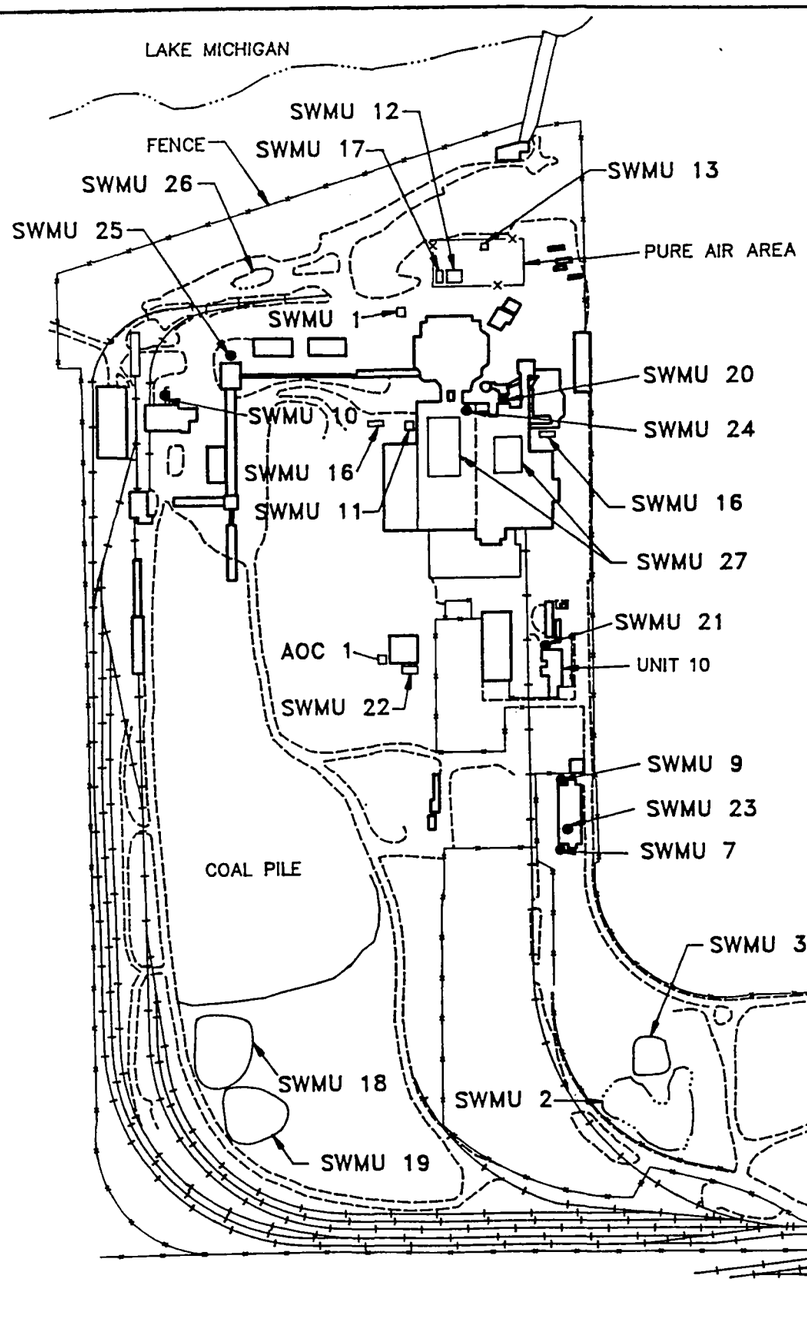
Notes:

[a] Not applicable (NA) designates nonhazardous waste.

[b] "None" indicates that the waste stream is not managed on site.

[c] "Unknown" indicates that the waste was generated at the facility but that the SWMU that managed the waste cannot be determined.

[d] Waste is no longer managed on site.



N

LEGEND

SWMU 1	FLY ASH SILO
SWMU 2	BOTTOM ASH POND
SWMU 3	BOTTOM ASH WASTE PILE
SWMU 4	SETTLING PONDS
SWMU 5	SECONDARY SETTLING POND NO. 2
SWMU 6	INDUSTRIAL WASTEWATER TREATMENT PLANT
SWMU 7	CONTAINER STORAGE AREA
SWMU 8	FORMER CONTAINER STORAGE AREA NO. 1
SWMU 9	FORMER CONTAINER STORAGE AREA NO. 2
SWMU 10	COAL HANDLING MAINTENANCE WASTE OIL TANK SYSTEM
SWMU 11	PLANT WASTE OIL TANK SYSTEM
SWMU 12	PURE AIR WASTEWATER TREATMENT PLANT
SWMU 13	PURE AIR WASTE OIL TANK
SWMU 14	NORTH LANDFILL
SWMU 16	CHEMICAL CLEANING FRACTIONATOR TANKS
SWMU 17	PURE AIR FILTER CAKE HOPPER
SWMU 18	FLY ASH WASTE PILES
SWMU 19	FORMER FILTER CAKE WASTE PILE
SWMU 20	FORMER WASTE OIL UNDERGROUND STORAGE TANK
SWMU 21	UNIT NO. 10 UNDERGROUND STORAGE TANK
SWMU 22	ASBESTOS HOPPERS
SWMU 23	CENTRAL LABORATORY SATELLITE ACCUMULATION AREA
SWMU 24	BOILER ROOM SATELLITE ACCUMULATION AREA
SWMU 25	COAL SCRAP PILE
SWMU 26	COAL HANDLING MAINTENANCE SURFACE IMPOUNDMENT
SWMU 27	BOILER UNITS NO. 7 AND 8
AOC 1	EMPTY DRUM STORAGE AREA

100' 0 100' 200'
SCALE: 1" = 200'

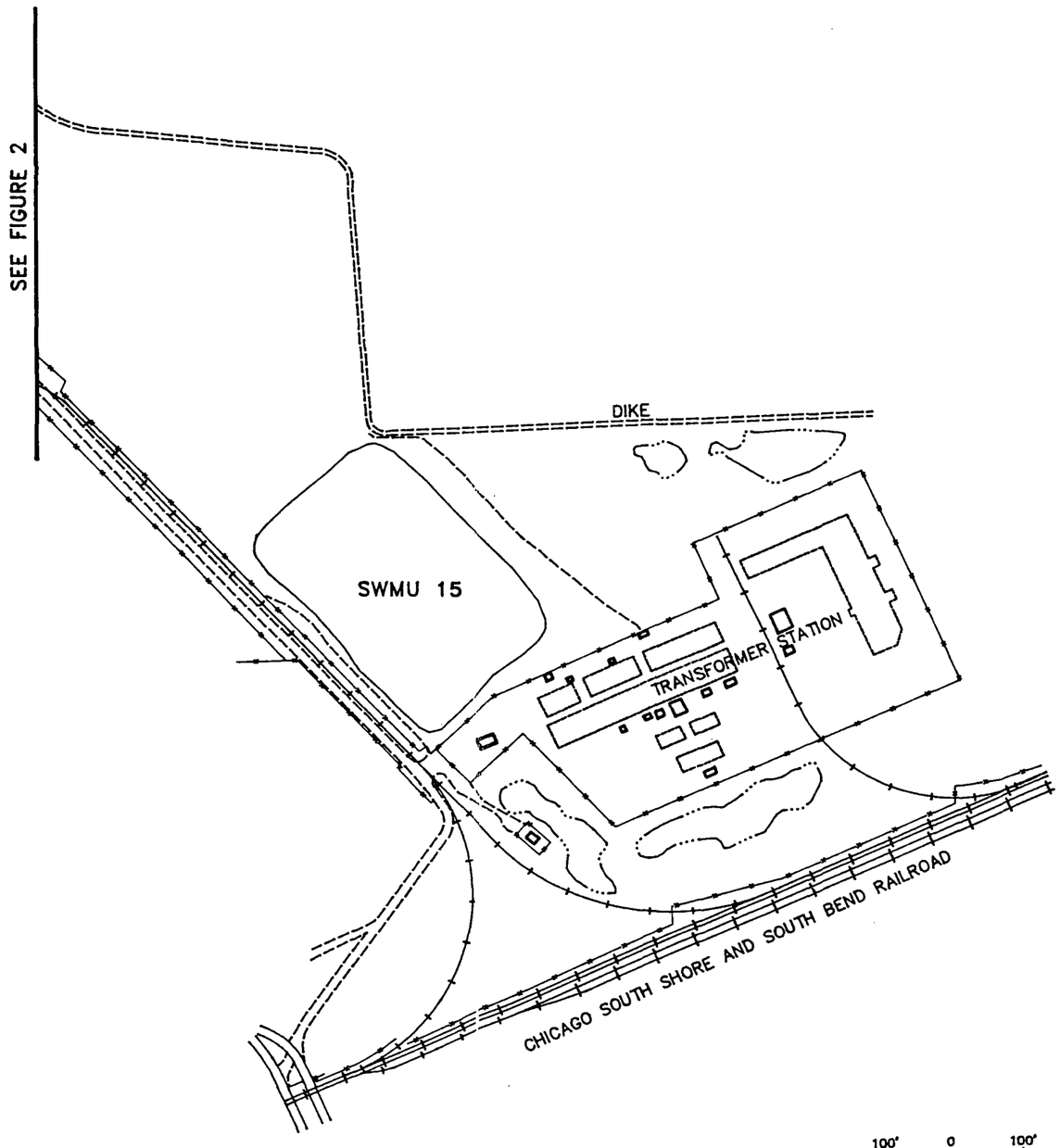
SOURCE: MODIFIED FROM NIPSCO SKETCH RECEIVED BY PRC ON DECEMBER 3, 1992

NIPS2001.DWG - 02/24/93 - CFR - 009C0508ZHH4R

NORTHERN INDIANA PUBLIC SERVICE COMPANY
BAILLY GENERATING STATION
CHESTERTON, INDIANA

FIGURE 2
FACILITY LAYOUT–NORTH

PRC ENVIRONMENTAL MANAGEMENT, INC.



LEGEND

SWMU 15 SOUTH LANDFILL

100' 0 100' 200'

SCALE: 1" = 200'

SOURCE: MODIFIED FROM NIPSCO SKETCH RECEIVED BY PRC ON DECEMBER 3, 1992

NORTHERN INDIANA PUBLIC SERVICE COMPANY
BAILLY GENERATING STATION
CHESTERTON, INDIANA

FIGURE 3

FACILITY LAYOUT–SOUTH

PRC ENVIRONMENTAL MANAGEMENT, INC.

NIPS2002.DWG - 02/24/93 - CFR - 009C050B7IN4R

Nonhazardous air heater wash is generated when air heaters in the boilers are cleaned. Water is used to clean the air heater, and the resulting wash is discharged to sumps below the boiler units where it can be directed to Secondary Settling Pond No. 2 (SWMU 5). Before 1980, this waste was also managed in the Settling Ponds (SWMU 4). The facility was unable to determine the amount of this waste generated annually. Air heater wash is treated in the Industrial Wastewater Treatment Plant (SWMU 6) and discharged to Lake Michigan or recycled through the plant.

The water side of the boiler units is periodically cleaned to remove accumulated deposits from the boiler tubes. The deposits consist of iron and copper with lesser amounts of calcium, phosphate, and silica. The chemical solutions used to clean the boiler tubes include ammoniated citric acid, ammoniated ethylene diaminetetra-acetic acid, passivated hydrochloric acid, and hydroxyacetic-formic acid. Hydroxyacetic-formic acid has been used for cleaning since 1980. Cleaning is done in two steps: the acid rinse and the passive rinse. The acid rinse generates about 40,000 gallons of boiler chemical cleaning waste per cleaning. The passive rinse generates about 120,000 gallons of boiler chemical cleaning rinsates per cleaning. Until 1980, both the boiler chemical cleaning waste and the boiler chemical cleaning rinsate were discharged to the Settling Ponds (SWMU 4) and the Secondary Settling Pond No. 2 (SWMU 5) before these SWMUs were separated. In the early 1980s, the wastes were discharged to SWMU 5 and then to the Industrial Wastewater Treatment Plant (SWMU 6) for treatment. Currently, the wastes are stored in the Chemical Cleaning Fractionator Tanks (SWMU 16). The wastes are held separately within SWMU 16 and both wastes are analyzed. The boiler chemical cleaning waste sometimes is a characteristic hazardous waste (D007) and is transported off site by Mr. Franks, Inc., for treatment by Chem Clear, Inc., of Chicago, Illinois within 90 days. If the boiler chemical cleaning waste is nonhazardous, the waste is evaporated in either Boiler Unit No. 7 or 8 (SWMU 27). The nonhazardous boiler chemical cleaning rinsate is also evaporated in SWMU 27.

Nonhazardous precipitator wash is generated when the precipitator is washed with water. The precipitator wash is discharged to the Secondary Settling Pond No. 2 (SWMU 5). This waste is treated in the Industrial Wastewater Treatment Plant (SWMU 6). Before 1980, this waste was also managed in the Settling Ponds (SWMU 4). The facility was unable to determine the amount of this waste generated annually.

Nonhazardous coal handling maintenance waste oil is generated during the maintenance of the heavy machinery used to move coal. This waste is stored in the Coal Handling Maintenance Waste Oil Tank System (SWMU 10). The facility was unable to determine the amount of this waste generated annually and the disposal facility that receives this waste.

Plant waste oil is generated during the maintenance of operating equipment. This waste is stored in the Plant Waste Oil Tank System (SWMU 11) and the Former Waste Oil UST (SWMU 20). The waste is brought to SWMU 11 in pails, the contents of which are emptied into SWMU 11's containment pan. When full, the contents of the containment pan are pumped into one of two aboveground storage tanks located at SWMU 11. The facility was unable to determine how the waste was placed in SWMU 20. The facility was unable to determine the amount of the waste generated annually and the treatment, storage, or disposal (TSD) facility receiving this waste.

Various maintenance activities around the facility involve the use of three parts washers that are maintained by the Safety-Kleen Corporation (Safety-Kleen) of Dolton, Illinois. This process generates waste mineral spirits (D001). This waste is removed directly from the parts washers by Safety-Kleen and, thus, is not managed on site.

The Pure Air Flue Gas Desulfurization System uses wet limestone scrubbing to remove sulfur dioxide from the flue gas of the boiler units. Limestone slurry is dewatered to recover gypsum. This process generates a nonhazardous Pure Air system wastewater. This wastewater is piped to the Pure Air Wastewater Treatment Plant (SWMU 12) for treatment before discharge to Lake Michigan. The treated water is monitored continuously before discharge to Lake Michigan. The facility was unable to determine the amount of this waste generated annually.

Nonhazardous Pure Air system filter cake is generated during the dewatering of treatment sludge from the Pure Air Wastewater Treatment Plant (SWMU 12). The treatment sludge is pumped into a plate and frame filter press that dewaters the sludge to about 60 percent solids. The plate and frame filter press is then opened, and the filter cake is allowed to drop into the Pure Air Filter Cake Hopper (SWMU 17). About 240 tons of this waste is generated annually. The waste is transported off site and landfilled by the LaPorte County Regional Disposal Facility (LaPorte) in Michigan City, Indiana.

Nonhazardous Pure Air waste oil is generated during the maintenance of gear boxes in the Pure Air System. This waste is stored in the Pure Air Waste Oil Tank (SWMU 13). The waste oil is transported to the unit in pails, the contents of which are dumped into SWMU 13. About 220 gallons of this waste is generated annually. The waste is transported off site and reclaimed by Safety-Kleen of Portage, Indiana.

Industrial wastewater is generated during production and maintenance activities. This wastewater is piped from various locations throughout the facility to the Settling Ponds (SWMU 4). Before 1980, this waste was also managed in the Secondary Settling Pond No. 2 (SWMU 5).

The wastewater comes from plant floor drains, turbine rooms sumps, boiler unit sumps, filter backwashing, and demineralizer regenerating. Demineralizer is used to removed minerals from the lake water used to generate steam. The demineralizer is regenerated using a 2 percent sulfuric acid solution followed by a 5 percent sodium hydroxide solution. Facility representatives stated that the resulting mixture of the acidic and caustic solutions has an almost neutral pH. After settling in SWMU 4, the waste is either recycled through the plant or discharged to Lake Michigan.

Sludge removed from the clarifiers in the Industrial Wastewater Treatment Plant (SWMU 6) is dewatered and landfilled at LaPorte in Michigan City, Indiana, or at Wheeler Recycling and Disposal Facility in Wheeler, Indiana. The facility is permitted to dispose of 2,000 cubic yards of this waste per year. The facility was unable to determine the SWMU used to manage this waste.

NIPSCO has been in the process of removing asbestos insulation from the boiler units since 1978. Asbestos insulation is stored in the Asbestos Hoppers (SWMU 22). Asbestos waste is wetted and placed in plastic bags. The amount of asbestos waste generated depends on how much insulation can be removed from a unit when the unit is shut down for general maintenance. Past generation rates are as follows: 80 cubic yards in 1978, 40 cubic yards in 1981, and 210 cubic yards in 1982. Indiana Sanitation transported these wastes to the Wheeler Recycling and Disposal Facility in Wheeler, Indiana, for landfill disposal. During the VSI, the facility was removing asbestos insulation from Boiler Unit No. 8.

Coal is crushed into pieces of less than 0.25 inch in the crusher house. Inert material that does not pass the crusher is conveyed through a metal chute to the Coal Scrap Pile (SWMU 25). This coal crusher scrap consists of ore deposits, rock, and pieces of steel. The facility was unable to determine the amount of this waste generated annually and the disposal facility that receives this waste.

Storm-water drains in the coal handling maintenance area discharge to the Coal Handling Maintenance Surface Impoundment (SWMU 26). The facility calls this storm water coal handling maintenance runoff. Facility representatives stated that this waste is removed from SWMU 26 and transported off site for disposal. The facility was unable to determine the amount of this waste generated annually and disposal facility that receives this waste.

NIPSCO is now removing its PCB-laden capacitors and transformers. The facility was unable to determine the amount of this waste generated annually and the disposal facility that receives this waste.

Unit No. 10 is a natural gas or fuel oil burning generator used to generate electricity during times of peak demand. Floor drains within this building connect to the Unit No. 10 UST (SWMU 21). All leaks and spills from Unit No. 10 are directed to this unit. Wastes from this unit are called Unit No. 10 waste. The facility was unable to determine the amount of this waste generated annually and the disposal facility that receives this waste.

Ethylene glycol solution (antifreeze) was removed from a heat recovery device called an air heater in July 1991 and 1992. About 6,400 gallons of this waste was transported by Safety-Kleen to Breslube U.S.A., Inc., in East Chicago, Indiana, for recycling. Safety-Kleen manifested this waste as hazardous waste (D008, D018, and D039) based on past analytical results obtained from solutions of ethylene glycol found in automobiles. Based on subsequent analyses of the ethylene glycol from this and other facilities of Northern Indiana Public Service Company in the area, the facility reclassified the waste as nonhazardous and omitted the waste from the facility's biennial report (NIPSCO, 1992).

The central laboratory for four NIPSCO facilities is located at this facility. The central laboratory performs quality analyses on various types of insulating, lubricating, and hydraulic oils. Wastes associated with the central laboratory are comprised of about 80 percent Stoddard solvent, 10 percent butanol, and 10 percent test oils. The facility has given these wastes a D001 characterization code. During analysis, the waste is discharged directly from the testing equipment to 3-liter polypropylene bottles. These bottles are accumulated in the Central Laboratory Satellite Accumulation Area (SWMU 23). When SWMU 23 accumulates about two dozen bottles of waste, the bottles are transported to the CSA (SWMU 7) where they are emptied through a funnel into a 55-gallon drum. Between 1981 and 1990, the bottles of waste were transported to the Former CSA No. 1 and 2 (SWMUs 8 and 9) where they were emptied through a funnel into a 55-gallon drum. About three drums of this waste are generated annually. The facility was unable to determine the TSD facility that receives this waste.

The facility uses 1,1,1-trichloroethane as a degreasing solvent. Waste 1,1,1-trichloroethane (F001) is generated when the degreasing units are cleaned. The facility was unable to determine where the waste is stored on site, the amount of this waste generated annually, and the TSD facility that receives this waste.

The facility has its own laboratory, called the Bailly Station laboratory. This laboratory performs analysis on lake water for use in the boiler units, and on water prior to discharge to ensure that it meets NPDES requirements. The laboratory generates spent freon (F002) during analyses to determine if wastewater meets the NPDES requirements for oil and grease. Prior to

July 1992 spent freon was accumulated in a 55-gallon drum in the Former Boiler Room Satellite Accumulation Area (SWMU 24). When full, the drum was moved to either the CSA (SWMU 7) or the Former CSA No. 2 (SWMU 9). Currently, the waste is stored in SWMU 7 for less then 90 days. The facility was unable to determine the amount of waste generated annually and the TSD facility that receives this waste.

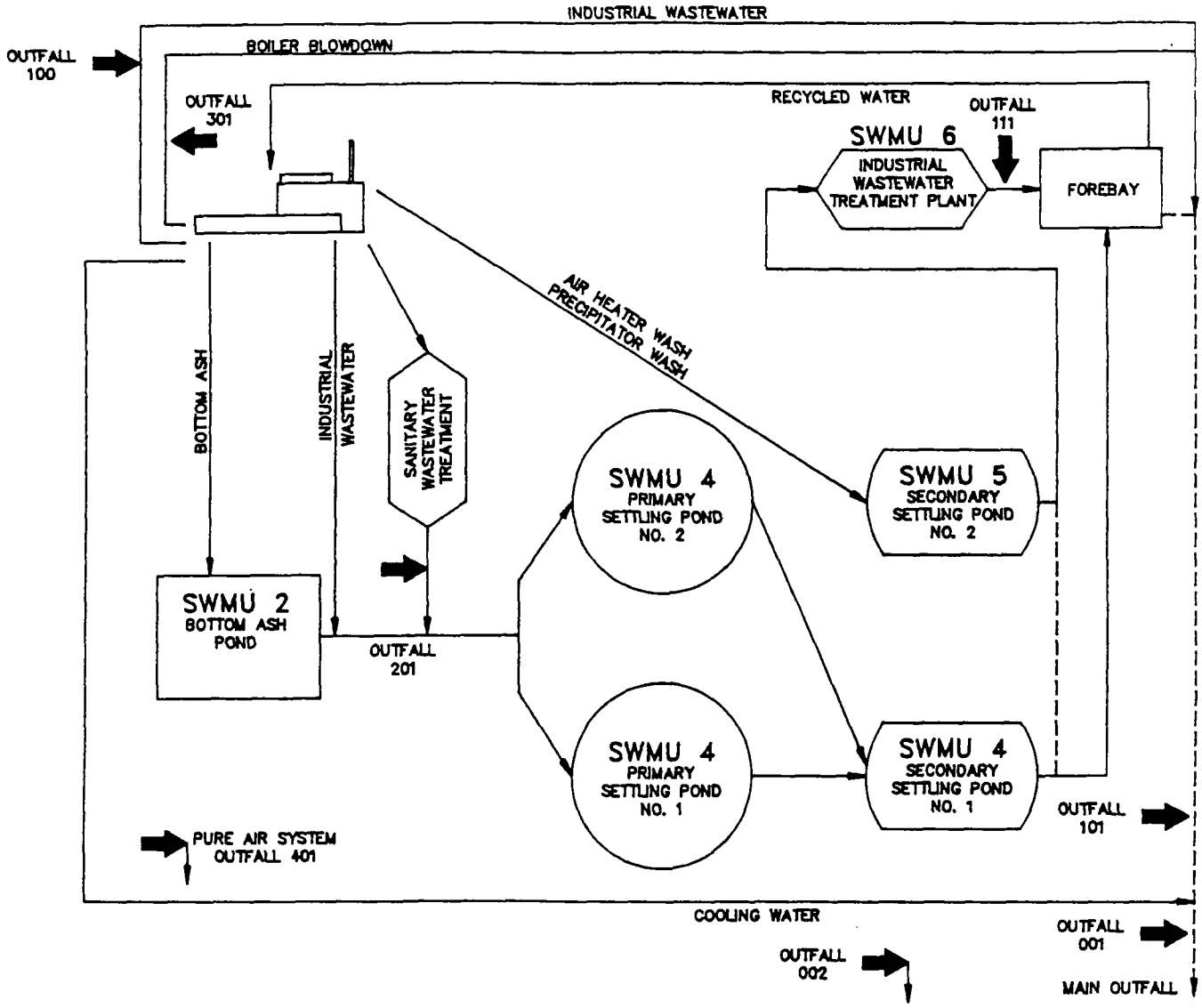
The facility generates boiler blowdown. Boiler unit blowdown occurs when water in the boiler is not of sufficient quality for continued operation. This usually happens when increased phosphate concentration is observed or immediately following a condenser leak. Boiler unit blowdown water consists of the water that is in the unit at the time of shutdown. Usually, blowdown consists of water that contains phosphate in the range of 0 to 5 parts per million (ppm), along with any phosphate compounds (calcium phosphate, magnesium phosphate, sodium phosphate) that have formed as a result of phosphates combining with impurities introduced into the system by small condenser tube leaks. Boiler blowdown is discharged directly to Lake Michigan in accordance with NPDES requirements. Figure 4 depicts a flow diagram of process wastes that affect the NPDES monitoring system.

The facility received permission from the Indiana Stream Pollution Control Board to treat spent hydrochloric acid boiler cleaning solution (D002) from another NIPSCO facility in the Industrial Wastewater Treatment Plant (SWMU 6). In January 1983, 158,000 gallons of this waste was discharged to Secondary Settling Pond No. 2 (SWMU 5). The pH of the waste was 0.2. The lowest pH measured in SWMU 5 was 2.58, indicating that the pond had sufficient buffering capacity to maintain the pH above the hazardous waste limit and render the waste nonhazardous by neutralization. None of the metals measured in the waste exceeded extraction procedure (EP) toxicity limits. A second batch of waste was treated in May 1983 with results similar to those described above. These wastes were treated in SWMU 6 and discharged to Lake Michigan. The discharge was in compliance with NPDES requirements (NIPSCO, 1985a).

2.4 HISTORY OF DOCUMENTED RELEASES

This section discusses the history of documented releases to ground water, surface water, air, and on-site soils at the facility.

In July 1976, the National Park Service notified NIPSCO that 1 million gallons of water per day were seeping from NIPSCO's surface impoundments onto the Indiana Dunes. In February 1978, NIPSCO agreed to permanently terminate the seepage. As a part of this agreement, NIPSCO applied to the Indiana Stream Pollution Control Board for an amendment to its NPDES permit that would authorize NIPSCO to discharge water from its ponds into Lake



LEGEND

NPDES MONITORING SYSTEM

NIPSFLOW.DWG - 02/11/93 - CER - 008-C0508ZTN4R

SOURCE: MODIFIED FROM NIPSCO SKETCH RECEIVED BY PRC ON DECEMBER 3, 1992

NORTHERN INDIANA PUBLIC SERVICE COMPANY
BAILLY GENERATING STATION
CHESTERTON, INDIANA

FIGURE 4
WASTEWATER FLOW SYSTEM

PRC ENVIRONMENTAL MANAGEMENT, INC.

Michigan. NIPSCO also sealed the ponds with a foot of natural clay liner, a membrane liner, and sand and buffer materials. NIPSCO began to monitor ground water in the vicinity of the ponds and constructed an Industrial Wastewater Treatment Plant (SWMU 6) to meet the NPDES requirements (USDI, 1978).

On April 24, 1982, NIPSCO reported to the State of Indiana Board of Health that a red-colored water was being discharged to Lake Michigan. A review of plant operations at the time identified that a high-pressure blowdown valve was slightly open during waterside chemical cleaning at Boiler Unit No. 7. NIPSCO stated that in previous inspections, the valve was in a securely closed position. NIPSCO estimated that 3,000 gallons of chemical cleaning solution was discharged between 9:00 a.m. and 10:00 a.m. Samples of the red-colored water were collected and analyses of the samples showed a pH of 7.68, iron concentration of 0.25 ppm, and copper concentration of 0.18 ppm (NIPSCO, 1982b).

The thermal unit at NIPSCO was shut down on February 1, 1989. As a result, cold water was discharged directly to Lake Michigan. Water coming into the facility from Lake Michigan is normally 40 degrees Fahrenheit (°F). After passing through the thermal unit, however, the water was discharged at about 75 °F. When the thermal unit shut down, the water was discharged to Lake Michigan at about 48 °F, causing a thermal shock and killing fish in the area of the discharge. At 9:00 a.m., the discharge water temperature was 75 °F, dropping to 48 °F by 10:00 a.m. The quantity of cold water was unknown. IDEM stated that no further action was necessary (IDEM, 1989a). The facility was unable to determine when the system returned to normal.

On July 2, 1991, the main discharge and circulating intake pipe collapsed, causing the loss of all water systems at the NIPSCO facility. The collapse occurred when pilings were driven into the ground as part of the construction of the Pure Air desulfurization plant. Apparently, the pilings were driven through the pipe, causing it to collapse. This caused a sink hole to develop, which was approximately 200 yards by 40 yards in size. The facility was shut down for about 5 months while the pipes were replaced.

As a result of the collapse, discharge water surged through the main circulating intake, flooding the basement of the facility. A 55-gallon drum of hydrazine was overturned when the basement flooded, releasing about 40 pounds of hydrazine. Hydrazine is used to prohibit corrosion in the boilers. The basement drained through the floor drains to the settling ponds (SWMU 4) (IDEM, 1991). Samples were collected from SWMU 4 on July 3, 1991. Analysis of these samples showed the following hydrazine concentrations: Primary Pond No. 1 with 16.7 parts per billion (ppb), Primary Pond No. 2 with 2.7 ppb, Secondary Pond No. 1 with 3.1 ppb,

and the forebay with 2.2 ppb. NIPSCO stated that it would continue to monitor hydrazine levels in the ponds to track its depletion by oxygen (NIPSCO, 1991c).

IDEM requested that NIPSCO conduct a complete EPA priority pollutant scan of the settling ponds before discharging the contents to Lake Michigan. However, the facility did not conduct a complete EPA priority pollutant scan of the settling ponds. During July 1992, a submersible pump was placed in Secondary Pond No. 1 to aerate the water, thus, degrading the hydrazine therein. On July 20, 1992, the hydrazine concentration in the ponds was about 1 ppb and thought to be below the limit of detection. The contents of the ponds were discharged to Lake Michigan on December 4, 1992 (NIPSCO, 1993).

2.5 REGULATORY HISTORY

NIPSCO submitted a Notification of Hazardous Waste Activity form to EPA on August 18, 1980 as a generator, transporter, and as a TSD facility (NIPSCO, 1980a). NIPSCO first submitted a RCRA Part A permit application on November 18, 1980 (NIPSCO, 1980b). This application listed the following process codes and capacities: 1,000 gallons of tank storage (S02) referring to the Former Waste Oil UST (SWMU 20); 126,400 cubic yards of surface impoundment storage (S04) referring to Secondary Settling Pond No. 2 (SWMU 5); 1.4 million gallons per day of tank treatment (T01), possibly referring to the Industrial Wastewater Treatment Plant (SWMU 6); 220,000 gallons of temporary storage tanks (T04) referring to the Chemical Cleaning Fractionator Tanks (SWMU 16); 1.4 million gallons per day of wastewater treatment plant (T04) referring to the Industrial Wastewater Treatment Plant (SWMU 6); and 400,000 gallons of generating station boiler treatment (T04) referring to Boiler Units No. 7 and 8 (SWMU 27). The application listed the following estimated annual quantities of wastes: 1,660 tons of D007 waste in T04, S04, and T02; and 79,265 pounds of D000 waste in S02. The process code T02, surface impoundment treatment, was not identified in the facility's Part A permit application. The process code T01 was not assigned a waste in this Part A permit application.

On June 19, 1981, NIPSCO submitted a revised Notification of Hazardous Waste Activity form and Part A permit application (NIPSCO, 1981). NIPSCO stated that a conservative approach was taken to note every activity that might possibly be subject to RCRA regulation. This was done because an 8-month-long union strike commenced on June 1, 1980 and inhibited a detailed assessment of hazardous waste activities at the facility. The revised Notification of Hazardous Waste Activity form listed the following waste codes: F001, D002, and D000. The revised Part A permit application listed the following process codes and capacities: 1,000 gallons of container storage (S01) referring to the Former CSA No. 1 (SWMU 8); 25.67 million gallons of surface impoundment storage (S04) referring to Secondary Settling Pond No. 2 (SWMU 5); 1.4 million

gallons per day of tank treatment (T01) possibly referring to the Industrial Wastewater Treatment Plant (SWMU 6); 220,000 gallons of temporary storage tanks (S02) referring to the Chemical Cleaning Fractionator Tanks (SWMU 16); 1.4 million gallons per day wastewater treatment plant (T04) referring to the Industrial Wastewater Treatment Plant (SWMU 6); and 400,000 gallons of generating station boiler treatment (T04) referring to the Boiler Units No. 7 and 8. This application listed the following estimated annual quantities of wastes: 1,660 tons of D007 waste in S04, T01, T04, and S02, and 17,000 pounds of F001 waste in S01 (NIPSCO, 1981). The waste codes D002 and D000 from the Notification of Hazardous Waste Activity form were not identified on the facility's Part A permit application.

In July 1976, the National Park Service notified NIPSCO that 1 million gallons of water per day were seeping from NIPSCO's surface impoundments onto the Indiana Dunes. In February 1978, NIPSCO agreed to permanently terminate the seepage. As a part of this agreement, NIPSCO applied to the Indiana Stream Pollution Control Board for an amendment to its NPDES permit that would authorize NIPSCO to discharge water from its ponds into Lake Michigan. NIPSCO also sealed the ponds with a foot of natural clay liner, a membrane liner, and sand and buffer materials. NIPSCO began to monitor ground water in the vicinity of the ponds and constructed an Industrial Wastewater Treatment Plant (SWMU 6) to meet the NPDES requirements (USDI, 1978).

NIPSCO determined that the surface impoundments would be divided into two systems. Currently, the Settling Ponds (SWMU 4) receive nonhazardous industrial wastewater, treated sanitary wastes, and overflow from the Bottom Ash Pond (SWMU 2). These wastes do not require additional treatment for recycle through the plant or discharge to Lake Michigan. SWMU 4 consists of Primary Pond No. 1, Primary Pond No. 2, and Secondary Pond No.1. Secondary Settling Pond No. 2 (SWMU 5), receives wastes that require treatment in the Industrial Wastewater Treatment Plant (SWMU 6) before they are recycled through the plant or discharged to Lake Michigan. These wastes include nonhazardous air heater wash and precipitator wash. In the early 1980s, SWMUs 5 and 6 managed hazardous wastes, boiler chemical cleaning waste (D007), and spent hydrochloric acid boiler cleaning waste (D002).

Six ground-water monitoring wells were installed around the Secondary Settling Pond No. 2 (SWMU 5) in November 1981. These wells were installed around SWMU 5 to satisfy regulatory requirements for surface impoundments that store hazardous wastes. NIPSCO was required to report to EPA ground-water monitoring results that showed contaminant concentrations in excess of drinking water standards. Ground-water monitoring results from the six monitoring wells around SWMU 5 showed contaminant concentrations that exceeded drinking water standards on four different sampling occasions in 1982. Cadmium was detected in two

wells in the four sampling occasions. Fecal coliform (coliform) counts were exceeded in three wells on three occasions, and chromium, lead, and nitrate drinking water standards were exceeded in one well on each occasion (NIPSCO, 1982a, 1982c, 1982d, and 1982e).

In May 1983, NIPSCO requested that ground-water monitoring requirements for the Secondary Settling Pond No. 2 (SWMU 5) be waived. The facility stated that this unit was used to neutralize wastes that exhibited the characteristic of corrosivity and that the corrosive wastes were neutralized in the unit. Furthermore, the facility stated that there was no potential for hazardous wastes to migrate from the unit. The facility stated that SWMU 5 contained a dual lining system that included both clay and membrane lining (NIPSCO, 1983).

In September 1985, NIPSCO requested that the facility's Part A permit application be withdrawn and that the following facility's waste activities and process codes be exempt from RCRA requirements: container storage (S01), tank storage (S02), wastewater treatment (T04), generator station boilers (T04), tank treatment (T01), and surface impoundment storage (S04) (NIPSCO, 1985b). Ground-water monitoring requirements for the surface impoundment storage were waived in December 1983 (ISBH, 1983). In November 1985, NIPSCO submitted a container/storage closure request (EPA Policy No. 121) for the container storage (S01) (NIPSCO, 1985c). On September 26, 1986, IDEM notified NIPSCO that the process codes S02, T01, T04, and S04 were exempt from RCRA requirements, and, therefore, removed from the facility's Part A permit application. IDEM also stated that the facility's Part A permit application was withdrawn and the facility would be regulated as a generator of hazardous waste only (IDEM, 1986b). The facility is currently regulated as a large-quantity generator storing hazardous wastes for less than 90 days.

In the past, NIPSCO has had RCRA compliance problems. IDEM conducted a RCRA Part B permit application inspection on June 18, 1985; a RCRA TSD closure inspection on March 10, 1986; and a RCRA compliance inspection on July 9, 1992 (ISBH, 1985; IDEM, 1986a; IDEM, 1992). Inspectors noted compliance problems in the 1986 and 1992 inspections. These problems were related to inspection logs; personnel training and training records; the facility's contingency plan, waste manifests, and biennial reports; and waste determination. NIPSCO responded to the violations with approved corrective actions.

The facility is required to have operating air permits. The handling and storage systems for the coal-fired boilers are operated under IDEM Permit No. 64-07-92-0248. Oil-fired gas turbine emissions are permitted under IDEM Permit No. 64-07-92-0247. Boiler Units No. 7 and 8, are exhausted to the atmosphere through a 400-foot-tall stack under IDEM Permits No. 64-07-92-0245 and 64-07-92-0246, respectively. IDEM Permit No. PC (64) 1816 authorized

the construction of the Pure Air Advanced Flue Gas Desulfurization system (IDEM, 1989b and 1990b).

The NIPSCO facility has had air compliance violations. In December 1980, January 1981 and January 1991, sulfur dioxide emissions were in excess of 6.0 pounds per million British thermal unit (BTU) of heat input. NIPSCO stated that an unexpected rise in the coal sulfur content caused the exceedances. The situations were resolved by blending coal that had a high sulfur content with coal that had a low sulfur content (ISBH, 1982a; NIPSCO, 1991a). The Air Pollution Control Board fined NIPSCO $10,000 for the sulfur dioxide exceedances that occurred in December 1980 and January 1981 (ISBH, 1982b). The facility also has a history of odor complaints from area residents.

NIPSCO is required to have a NPDES permit. The plant uses water obtained from Lake Michigan; however, sanitary water and drinking water are obtained from the municipal water supply. The facility discharges wastewater through two outfalls to Lake Michigan and several internal outfalls. Outfalls 001 and 002 discharge directly to Lake Michigan. Once-through condenser cooling water, noncontact cooling water, and untreated boiler blowdown are all discharged through these outfalls.

Outfall 002 discharges intermittently in front of the facility's intake structure during winter months to prevent the intake from freezing. The NPDES permit specifies a combined average discharge from Outfalls 001 and 002 of 265 million gallons per day.

Outfall 101 is an internal discharge from the Settling Ponds (SWMU 4) to Outfall 001. Waste streams contributing to the Settling Ponds (SWMU 4) include industrial wastewater (floor drains from the boiler rooms and the turbine rooms, filter backwash, and demineralizer regenerant), and Outfall 201 which discharges from the sanitary sewage treatment plant to SWMU 4.

Outfall 003 discharges coal pile runoff to the ground surface, where the runoff is absorbed by the sandy soil. In an emergency, Outfall 100 is used to bypass the Settling Ponds (SWMU 4) and directly discharge wastewater to Outfall 001. Outfall 401 discharges treated Pure Air System wastewater to Outfall 001. Monitoring parameters for all the facility's outfalls include flow, temperature, pH, residual chlorine, total suspended solids (TSS), oil and grease, biochemical oxygen demand (BOD), and coliform.

In the past, NIPSCO has had NPDES permit compliance problems. Discharge from Outfall 003 exceeded pH limits in April, July, August, September, October, and November 1989

(IDEM 1990a); September 1990 (NIPSCO, 1990b); and May and October 1991 (NIPSCO, 1991b and d). NIPSCO stated that the pH exceedances occurred during periods of excessive rainfall and was not because of facility operations (NIPSCO, 1990a).

Discharge from Outfall 100 exceeded pH limits in April 1989 and TSS limits in March 1989 (IDEM, 1990a). Outfall 100 is an intermittent outfall used in emergencies; discharge was necessary to repair the sump in the industrial wastewater system (NIPSCO, 1989).

Discharge from Outfall 201 exceeded BOD limits in June, August, and December 1989, and June 1992. It exceeded chlorine residual limits in March 1989 and October 1990. Outfall 201 exceeded coliform limits in April, September, and November 1989; August 1991; and January, June, and September 1992. The BOD levels rose above permit limits when a blower motor failed. Coliform limits were exceeded because the chlorine residual was too low (NIPSCO, 1990a).

NIPSCO had a total of eight USTs: one 550-gallon steel UST (SWMU 21) to collect liquid from floor drains from Unit No. 10, installation date unknown; one 1,000-gallon fiberglass reinforced plastic UST installed in 1984 to contain hazardous wastes from the central laboratory (this UST has never been used); one 1,200-gallon steel UST (SWMU 20) installed in 1962 for used oil storage (this UST was removed in November 1988); one 2,000-gallon steel UST installed in 1981 to contain gasoline; two 6,000-gallon steel USTs installed in 1964 used to store diesel fuel (these USTs had tar and wrap external protection); and two 10,000-gallon fiberglass-reinforced plastic USTs installed in 1990 to store gasoline and diesel fuel (NIPSCO, 1990c).

The 1,000-gallon UST was to be used to store the central laboratory's hazardous wastes. However, during the VSI, facility representatives stated that this UST never received any waste and that all drains leading to the UST have been sealed. The 2,000-gallon UST was removed in September 1990, and soil samples taken from the sides and bottom of the excavation indicated total petroleum hydrocarbon (TPH) values less than the detection limit (NIPSCO, 1990d). The two 6,000-gallon USTs were removed in April 1990, and soil samples taken from the sides and bottom of the excavation indicated TPH values between 0.002 and 0.007 ppm (K&S, 1990). During the VSI, facility representatives stated that the USTs are not leak tested because they do not contain a regulated material.

2.6 ENVIRONMENTAL SETTING

This section describes the climate; flood plain and surface water; geology and soils; and ground water in the vicinity of the facility. Unless otherwise cited, the information in this section is derived from Pure Air, Final Environmental Monitoring Plan, 1991, (Pure Air, 1991).

2.6.1 Climate

The climate in Porter County is affected by Lake Michigan, which results in snowy winters and, in areas close to the lake, relatively cooler summer temperatures. The average daily temperature is 56 (°F). The lowest averaged daily temperature is 19 °F in January. The highest average daily temperature is 82 °F in July (USDA, 1981).

The total annual precipitation for the county is 39.3 inches (USDA, 1981). The mean annual lake evaporation for the area is about 30 inches (USDC, 1968). The 1-year, 24-hour maximum rainfall is about 2.4 inches (USDC, 1963).

The prevailing wind is from the southwest at an average maximum speed of 12 miles per hour (USDA, 1981).

2.6.2 Flood Plain and Surface Water

The NIPSCO facility is not located in a 100-year flood plain (PRC, 1992b). The nearest surface water body, Lake Michigan, is located adjacent to the facility property, north of the facility and is used for multiple purposes. Other surface water bodies in the area include the Little Calumet River, located about 0.5 mile south of the facility. The Little Calumet River discharges to Lake Michigan through the Portage Burns Waterway about 5 stream miles west of the facility (USGS, 1968).

The natural topography of the facility is flat, with elevations ranging from 610 to 620 feet above mean sea level, with lower-elevation grassy areas on the northern and eastern sections of the facility. Surface water runoff is managed in the Coal Handling Maintenance Surface Impoundment (SWMU 26).

2.6.3 Geology and Soils

The geology along the southern shore of Lake Michigan represents a complex glacial and post-glacial history consisting of shallow-water coastal, lake, wetland, and dune sedimentation

that began during and continued after the final stages of glacial retreat in the great lakes area. In the subsurface of the Indiana Dunes region, three distinct sedimentary units exist: the basal, middle, and surface units. The basal unit consists of randomly interbedded clay, sand and gravel, and till, which rest on an irregular Paleozoic bedrock surface that is approximately 4,000 feet thick. The thickness of this lowermost lithologic unit is highly variable because of the underlying bedrock's relief and the latest erosion of the sediments.

The middle unit consists of an assemblage of interbedded till, glacial/lake clay, sand, and gravel. This unit crops out in the region as the Lake Border Moraine, about 0.5 miles south of the facility. The glacial/lake deposits are well developed northward within this unit, where it extends under Lake Michigan. The till deposits of the middle unit are more common south of the lake. Glacial till is exposed on the surface of the Lake Border Moraine, whereas the core consists of till interbedded sand and gravel.

The surface unit, an outcropping along the southern shore of Lake Michigan, consists of coastal sand with minor gravel, clay, calcareous mud, and peat. This series of the dune complexes began forming in response to changes in lake level and changes in the amount of sediment supplied to the coastline.

The most pronounced topographic feature in Porter County is the Valparaiso Moraine, about 6 miles south of the facility. It is a terminal mass of rocks, sand, and gravel formed by glaciation of the Wisconsin Age. The Moraine serves as the dividing line for drainage into Lake Michigan.

Soils located in the vicinity of NIPSCO are composed primarily of five types: Oakville fine sand, Houghton muck, Adrian muck, Maumee loamy fine sand, and Dune land. The large portion of ground used for industrial purposes in the area is classified as cut and fill.

Oakville fine sands are located on the older dunes in the area and are vegetated by immature and mature black oak forests. Plant growth is limited by the sand's water capacity and frequent drought.

Soils in the norther portion of the subdunal area are comprised of Houghton muck. These soils are very poorly drained and have a thick muck surface layer. The very poorly drained organic material of the soils severely limits the growth of plants other than wetland species.

The soils of the subdunal area and interdunal ponds are composed primarily of Adrian muck. These soils are very poorly drained and have characteristics similar to Houghton muck.

Soils at the southern end of the subdunal area are composed of Maumee loamy fine sand. Maumee soils are very poorly drained, coarse-textured soils that occupy nearly level flats and depressions. These soils are less wet and have shorter periods of standing water than Adrian muck.

Dune land occupies the area extending inland from the shore of Lake Michigan to established sand dunes. The blowing and deposition of sand create conditions that are tolerated by only a few plant species.

2.6.4 Ground Water

There are three major aquifers within the unconsolidated sediments surrounding the facility: basal, subtill, and surficial. The lowermost basal sand aquifier appears to be thicker east of the facility, although the extent of the aquifer is not well defined.

The most extensive confined aquifer in the area is the subtill aquifer, which consists primarily of sand with interbedded lenses of clay. The subtill aquifer is part of the geologic middle unit and underlies virtually the entire area of the Lake Border Moraine.

The most extensive aquifer in the area adjacent to the NIPSCO facility is the surficial aquifer, which consists of lake, beach, and dune sand deposits. The surficial aquifer is developed in all areas adjacent to the facility, except where glacial moraines are exposed at the surface. In the vicinity of the facility, the surficial aquifer is over 50 feet thick.

Ground-water flow in the region may be divided into regional, intermediate, and local flow systems. The regional ground-water flow system originates at the water table high in the Valparaiso Moraine and flows down through the glacial deposits under the Moraine into the upper bedrock, then laterally through the bedrock toward Lake Michigan.

The intermediate flow system originates at the water table high in the Lake Border Moraine. It extends down through the underlying subtill aquifer and flows northward, where it discharges via upward leakage into drainage systems.

Local flow systems within the surficial aquifer are recharged in the dune/beach complexes and discharge into streams, ditches, and ponds in the interdunal wetlands. The shallow ground-water flow system is typified by broad, flat, water table mounds that function as ground-water flow divides underlying the topographical high dune beach complexes. Shallow ground-

water flows north and south from these divides and discharges into adjacent low-lying areas and wetlands. The facility is located north of the water table divide underlying the shoreline dune-beach complex. The shallow ground water flows directly into Lake Michigan at an estimated rate of 0.5 feet per day.

From 1967 to 1980, fly ash produced during operation was collected by electrostatic precipitators and transported as a slurry to the Settling Ponds (SWMU 4). The ponds were periodically drained, and the accumulated ash was removed and used as fill in the North Landfill (SWMU 14) and the South Landfill (SWMU 15). Based on an evaluation of monitoring wells in the area, it was determined that seepage from these ponds, estimated at 2 million gallons per day created a ground-water mound that extended into the Indiana Dunes and caused several lowlands to be flooded year-round. This seepage mound acted as a north-south flow divide in the area of the facility. However, the seepage mound created by the unlined ponds extended no further than about 3,000 feet from the ponds.

2.7 RECEPTORS

The facility occupies 350 acres in an industrial area in Chesterton, Indiana. Chesterton has a population of about 9,124.

The facility is bordered on the north by Lake Michigan, on the west by Bethlehem Steel Corporation; on the south by U.S. Can Company and Route 12, and on the east by Indiana Dunes. The nearest residential area is located about 0.25 mile south of the facility along Route 12. No schools are within 1 mile of the facility (USGS, 1968). Facility access is controlled by an 8-foot-high fence and 24-hour surveillance system.

The nearest surface water body, Lake Michigan, is located adjacent to the facility, along the property's northern edge. Lake Michigan is used for multiple purposes. Other surface water bodies in the area include the Little Calumet River, located about 0.5 mile south of the facility (USGS, 1968).

Most people in the vicinity of the NIPSCO facility, including the NIPSCO facility, purchase drinking water from the Gary-Hobart Water Corporation that distributes Lake Michigan water. Intakes are located 3 miles from the shoreline; however, ground water is used as a private water supply for residences near the facility. The nearest drinking water well is located about 0.25 mile south of the facility along Route 12. These wells are located upgradient of the facility (PRC, 1991).

NIPSCO obtains its industrial water from Lake Michigan. Industrial wastewaters are discharged to the Settling Ponds (SWMU 4) and then to Lake Michigan. This wastewater is a makeup of demineralized regenerant, filter backwash, and treated sanitary wastes and drainage from boiler unit sumps, floor drains, turbine room sumps. Noncontact cooling water and untreated boiler blowdown are discharged directly to Lake Michigan. In the past, wastes that may have been a characteristic hazardous waste were discharged to the Secondary Settling Pond No. 2 (SWMU 5) and were treated in the Industrial Wastewater Treatment Plant (SWMU 6). Currently, these units do not manage hazardous wastes. Treated wastes are then discharged to Lake Michigan.

Sensitive environments are located on site. The NIPSCO facility borders Indiana Dunes to the east and, as a result, the facility property line extends about 500 feet into the bogs and low-lying-grassy meadows of the Indiana Dunes. About 100 acres of the facility consists as bogs and low-lying grassy meadows (USGS, 1968). One endangered plant species, Pitcher's thistle, inhabits Porter County (USDI, 1989).

3.0 SOLID WASTE MANAGEMENT UNITS

This section describes the 27 SWMUs identified during the PA/VSI. The following information is presented for each SWMU: description of the unit, dates of operation, wastes managed, release controls, history of documented releases, and PRC's observations. Figures 2 and 3 show the SWMU locations. The facility was unable to provide some information regarding SWMUs as indicated below.

SWMU 1	**Fly Ash Silo**
Unit Description:	This unit is located indoors on the north end of the facility. The unit is elevated about 20 feet above a concrete drive. The unit is made of steel, and its volume is unknown. Waste is pneumatically piped into this unit. Waste is transferred out of the unit and into transport trucks through a drop chute. As the waste leaves the unit, it can be wetted to control dust.
Date of Startup:	This unit began operations in about 1980.
Date of Closure:	This unit is active.
Wastes Managed:	This unit manages nonhazardous fly ash that are removed from combustion gases by electrostatic precipitators.
Release Controls:	The waste is pneumatically piped to the unit in enclosed pipes. The waste can be wetted as it leaves the unit to control dust.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, the concrete area below the unit's drop chute was covered with fly ash (see Photograph No. 1).
SWMU 2	**Bottom Ash Pond**
Unit Description:	This unit is located outdoors west of the Settling Ponds (SWMU 4). It is not known whether the unit is lined or unlined. The unit is about 0.25 acre in size. The unit receives bottom ash from the

	boiler units. The waste is mixed with recycled water to cool it and transported from the boilers to the unit via enclosed pipes. When necessary, the unit is dewatered, and a front end loader is used to remove the waste from the unit. The waste from the pond is placed in the Bottom Ash Waste Pile (SWMU 3). Overflow and wastewater from the dewatering process are discharged to the Settling Ponds (SWMU 4).
Date of Startup:	PRC believes the unit began operations when the facility started in 1962.
Date of Closure:	This unit is active.
Wastes Managed:	This unit manages nonhazardous bottom ash sluiced from the boiler units and treated sanitary wastes. Before 1980, the unit also managed fly ash.
Release Controls:	It is unknown whether the unit is lined or unlined. The unit is outdoors. Overflow from the unit is discharged to the Settling Ponds (SWMU 4).
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, the unit was receiving bottom ash from the Boiler Unit No. 7. The area surrounding the unit was very muddy with bottom ash (see Photograph No. 2).
SWMU 3	**Bottom Ash Waste Pile**
Unit Description:	This unit is located on the ground surface north of the Bottom Ash Pond (SWMU 2). Bottom ash is removed from SWMU 2 using a front end loader and is placed in the pile for dewatering. The size of the unit was estimated to be 60 by 80 feet. The ground surface slopes towards SWMU 2.
Date of Startup:	PRC believes the unit began operations when the facility started in 1962.

Date of Closure:	This unit is active.
Wastes Managed:	This unit manages nonhazardous bottom ash. Before 1980, the unit also managed fly ash.
Release Controls:	The ground surface slopes towards the Bottom Ash Pond (SWMU 2)
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, the waste pile was adjacent to the Bottom Ash Pond (SWMU 2). Bottom ash appeared to be spread on the ground surface (see Photograph No. 3).
SWMU 4	**Settling Ponds**
Unit Description:	The unit is located outdoors west of the Industrial Wastewater Treatment Plant (SWMU 6). The unit consists of Primary Settling Pond No. 1, Primary Settling Pond No. 2, and Secondary Settling Pond No. 1. In 1980, dual liners were placed in the unit. The unit is about 14 acres in size. Wastes are discharged to this unit for settling and are then recycled through the facility or discharged to Lake Michigan. If necessary, the wastes in this unit can be treated in the Industrial Wastewater Treatment Plant (SWMU 6).
Date of Startup:	PRC believes the unit began operations when the facility started in 1962.
Date of Closure:	The unit is active. It has been removed from the facility's Part A permit application.
Wastes Managed:	The unit manages nonhazardous industrial wastewater and overflow from the Bottom Ash Pond (SWMU 2). Before 1980, the unit also managed nonhazardous air heater wash, precipitator wash, bottom ash, fly ash, and boiler chemical cleaning rinsate, and boiler chemical cleaning waste (D007).

Release Controls:	In 1980, the unit was lined with 1 foot of natural clay and a membrane liner.
History of Documented Releases:	In February 1978, NIPSCO agreed to line this unit to prevent 1 million gallons of water per day from seeping onto the Indiana Dunes.
Observations:	During the VSI, the Primary Pond No. 1 contained wetland-type vegetation. Furthermore, a very light oil sheen could be seen on the surface of the water. The shoreline around Primary Pond No. 1 had a black color just above the water line. Primary Pond No. 2 and Secondary Pond No. 1 contained very little vegetation (see Photograph No. 4). PRC observed oil dry and oil stains on the floor of Boiler Unit No. 7. This oil may reach floor drains and sumps in the building and eventually end up in this SWMU.
SWMU 5	**Secondary Settling Pond No. 2**
Unit Description:	The unit is located outdoors west of the Industrial Wastewater Treatment Plant (SWMU 6). The unit is about 4 acres in size. Dual liners were placed in the unit in 1980. At the same time, the unit was also separated from the facility's settling ponds so that it could be used to receive hazardous wastes. When full, the contents of the unit are treated in SWMU 6 and then discharged to Lake Michigan or recycled through the facility as needed. In November 1981, six ground-water monitoring wells were installed around this unit. The unit is no longer used to store hazardous waste.
Date of Startup:	PRC believes the unit began operations when the facility started in 1962.
Date of Closure:	This unit is active. It has been removed from the facility's Part A permit application.
Wastes Managed:	This unit manages nonhazardous air heater wash and precipitator wash. The unit managed boiler chemical cleaning waste (D007), spent hydrochloric acid boiler cleaning waste (D002), and

nonhazardous boiler chemical cleaning rinsates until sometime in the early 1980s. It is not known when the unit began managing these wastes; however, prior to doing so, the unit managed nonhazardous industrial wastewater.

Release Controls: In 1980, the unit was lined with 1 foot of natural clay and a membrane liner.

History of Documented Releases: In February 1978, NIPSCO agreed to line this unit to prevent 1 million gallons of water per day from seeping onto the Indiana Dunes.

Observations: During the VSI, this unit contained no vegetation. Bottom sediments and shoreline about 2 feet above the waterline were stained a rust color (see Photograph No. 5).

SWMU 6 **Industrial Wastewater Treatment Plant**

Unit Description: This unit is located in a metal building east of the Settling Ponds (SWMU 4). The unit consists of a chemical feed system; two 8,000-gallon reaction tanks; two 162,000-gallon clarifiers; two vacuum filtration systems; and two 3,000-gallon clear well tanks. The unit is capable of treating 0.13 million gallons per day. The unit is used intermittently. Wastes are allowed to accumulate in the Secondary Settling Pond No. 2 (SWMU 5) before treatment. All tanks within the unit are located on a concrete floor with trenches that lead to a sump that acts as the entrance to the unit. When the unit is not being used, the sump overflows to SWMU 5.

Date of Startup: This unit began operations in about 1980.

Date of Closure: The unit is active. It has been removed from the facility's Part A permit application.

Wastes Managed: This unit treats settled air heater wash and precipitator wash. During the early 1980s, the unit treated boiler chemical cleaning

	waste (D007) and rinsates, and spent hydrochloric acid boiler cleaning waste (D002).
Release Controls:	The unit is contained within a metal building on a concrete floor. Trenches throughout the unit lead to a sump that begins the treatment process.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, the unit was not operating (see Photographs No. 6 and 15). PRC observed no evidence of a release.
SWMU 7	**CSA**
Unit Description:	This unit is located outdoors on the ground surface south of the central laboratory. From 1990 to 1991, drums of waste were stored on wooden pallets. Since 1991, the unit consists of a steel cabinet that is not locked. Drums of wastes are stored in this cabinet on a steel grate. The bottom of the unit has a secondary containment capacity for about 55 gallons. Wastes are brought to this unit in 3-liter polypropylene bottles and emptied into 55-gallon drums using a funnel.
Date of Startup:	This unit began operations in 1990.
Date of Closure:	This unit is active for less than 90-day storage of hazardous waste.
Wastes Managed:	This unit manages central laboratory wastes (D001) and spent freon (D002). It is not known how spent freon is currently placed in this unit.
Release Controls:	Drums of waste are managed in an unlocked steel cabinet with containment capacity for about 55 gallons.
History of Documented Releases:	No releases from this unit have been documented.

Observations:	During the VSI, the unit contained one 55-gallon drum of laboratory wastes. The containment area in the bottom of the steel cabinet was dry (see Photograph No. 7). PRC observed no evidence of release.
SWMU 8	**Former CSA No. 1**
Unit Description:	This unit is located outdoors south of the old central laboratory location. The unit consisted of a concrete pad that was about 12 by 25 feet in size. A sanitary lift station was located about 3 feet northeast of the unit. Four steel storage cabinets were located on the unit. These cabinets contained virgin solvents when the old central laboratory was operating from Spring 1981 to Summer 1982.
Date of Startup:	This unit began operations in spring 1981.
Date of Closure:	The unit has been inactive since summer 1982 and underwent RCRA closure in September 1986.
Wastes Managed:	This unit managed central laboratory wastes (D001). The waste is made up of 80 percent stoddard solvent, 10 percent butanol, and 10 percent test oils.
Release Controls:	The unit consisted of a concrete pad. Drums of waste were stored outdoors on the concrete pad. Virgin solvents were stored in metal cabinets on the concrete pad.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, it was discovered that a sanitary lift station was located about 3 feet from the northeast corner of the unit. The lift station was constructed of concrete and the cover was shifted such that a small opening was apparent. The lift station was located in a depression. It appears that surface runoff from the surrounding area may be directed towards the lift station.

	The unit contained four rusted storage cabinets that had been used to store laboratory chemicals. This unit also had steel framework and an empty rusted drum (see Photograph No. 8). PRC observed no evidence of release.
SWMU 9	**Former CSA No. 2**
Unit Description:	This unit was located outdoors north of the central laboratory. Drums of central laboratory wastes were stored on wooden pallets on the ground surface. The unit measured about 8 by 8 feet.
Date of Startup:	The unit began operations in 1982.
Date of Closure:	The unit underwent RCRA closure in September 1986 and was used until 1990 for less than 90-day storage of hazardous waste.
Wastes Managed:	The unit managed central laboratory waste (D001) and spent freon (D002).
Release Controls:	Drums of wastes were stored on wooden pallets on the ground. This unit had no release controls.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, the ground at the unit appeared to be gravel (see Photograph No. 9). PRC observed no evidence of a release.
SWMU 10	**Coal Handling Maintenance Waste Oil Tank System**
Unit Description:	The unit is located at the coal handling maintenance garage in the northwest portion of the facility. The unit consists of a steel containment pan in the maintenance garage and a steel aboveground storage tank north of the maintenance garage. Containers of maintenance waste oil are emptied into the containment pan and are then placed in an inverted position on the grate over the containment pan to allow the containers to drain completely. The containment pan has a capacity of about

	100 gallons. When the pan is full, oil in the pan is pumped to the storage tank. The capacity of the storage tank is unknown.
Date of Startup:	The date of startup is unknown.
Date of Closure:	This unit is active.
Wastes Managed:	This unit manages nonhazardous coal handling maintenance waste oil.
Release Controls:	The unit consists of a steel pan inside on a concrete floor and a storage tank located outdoors on a concrete secondary containment area. The curb on the containment area is 12 inches high. The containment area measures about 8 by 15 feet.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, a drum was draining into the containment pan. The containment pan contained about 2 inches of oil. The storage tank's containment area contained about 3 inches of oil, and the ground surface around the perimeter of the tank was stained in two areas. The storage tank was empty (see Photographs No. 10 and 11).
SWMU 11	**Plant Waste Oil Tank System**
Unit Description:	The unit consists of two steel containment pans and two steel aboveground storage tanks. One containment pan is located in the oil storage room in the northeast corner of the main building and the other pan is located near Boiler Unit No. 8. When full, the contents of the containment pans are pumped to the storage tanks. The containment pans have a capacity of about 100 gallons. The two storage tanks are located in a concrete containment area west of the maintenance building. The containment area measures about 15 by 16 feet. The capacity of the storage tanks is unknown.
Date of Startup:	The date of startup is unknown.

Date of Closure:	This unit is active.
Wastes Managed:	The unit manages nonhazardous plant waste oil
Release Controls:	The unit consists of steel pans inside on a concrete floor and two storage tanks located outdoors on a concrete secondary containment area. The curb on the containment area is about 12 inches high. The containment area measure about 15 by 16 feet.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, the condition of the storage tanks was not noted because they were outdoors, and, at the time of the observation, it was very dark (see Photographs No. 12 and 13).
SWMU 12	**Pure Air Wastewater Treatment Plant**
Unit Description:	The unit is located west of the Pure Air System. Unit processes include pH adjustment with coagulant addition, flocculation, and settling. Treatment processes are in enclosed tanks within a metal building on a concrete floor. Sludge from the settling tank is emptied into a filter press. The dewatered sludge, called filter cake, goes to the Pure Air Filter Cake Hopper (SWMU 17).
Date of Startup:	The unit began operation in June 1992.
Date of Closure:	The unit is active.
Wastes Managed:	This unit manages nonhazardous Pure Air Process wastewater. The wastewater is generated during the recovery of gypsum. Treated water from the settling tank is mixed with NIPSCO's discharge before reaching outfall 001. The quality of the treated water is continuously monitored before it is mixed with other wastewaters discharged and in accordance with NPDES requirements.
Release Controls:	The unit is located in a building on a concrete floor.

History of Documented Releases: No releases from this unit have been documented.

Observations: The unit was in operation during the VSI. No photograph was taken of this unit because the tanks within the unit were covered. The concrete floor of the unit's building was clean.

SWMU 13 **Pure Air Waste Oil Tank**

Unit Description: The unit is located indoors on the north end of the Pure Air System. The unit consists of a 200-gallon steel tank in a steel containment pan on a concrete floor. The containment pan measures about 4 by 5 feet by 10 inches deep.

Date of Startup: The unit began operation in June 1992.

Date of Closure: The unit is active.

Wastes Managed: The unit manages nonhazardous Pure Air waste oil.

Release Controls: The unit is located within a steel containment pan that is on a concrete floor.

History of Documented Releases: No releases from this unit have been documented.

Observations: During the VSI, the unit was half full and the containment pan was empty (see Photograph No. 14). PRC observed no evidence of release.

SWMU 14 **North Landfill**

Unit Description: The unit was located west of the Industrial Wastewater Treatment Plant (SWMU 6). Facility representatives were unsure of the landfill's size but estimated the area to be about 2.5 acres. They also stated that the unit could be much larger, extending below

	current facility roadways. The unit was not lined or capped; however, vegetative growth covered the unit.
Date of Startup:	PRC believes the unit began operation when the facility began operation in 1962.
Date of Closure:	The unit has been inactive since 1986.
Wastes Managed:	The unit was used to dispose of nonhazardous fly ash and bottom ash from the boiler units.
Release Controls:	This unit has no release controls.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, the unit appeared to be a flat field supporting vegetative growth (see Photograph No. 15). PRC observed no evidence of release.
SWMU 15	**South Landfill**
Unit Description:	This unit was located in the southeast section of the property near the substation. The unit measured about 500 by 1,400 feet and was a low swampy area that was filled in with nonhazardous fly ash and bottom ash. The unit was not lined or capped. Gravel exists as the cover material and supports no vegetative growth.
Date of Startup:	This unit began operation about 1965.
Date of Closure:	This unit has been inactive since 1979.
Wastes Managed:	This unit was used to dispose of nonhazardous fly ash and bottom ash from the boiler units.
Release Controls:	This unit had no release controls.

History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, the unit contained collapsed corrugated pipes from the main circulating intakes that collapsed in July 1991. The corrugated pipes were stored on the unit temporarily until investigation into the cause of the collapse is complete (see Photograph No. 16). PRC observed no evidence of release.
SWMU 16	**Chemical Cleaning Fractionator Tanks**
Unit Description:	This unit consists of 8 to 10 temporary 20,000- gallon storage tanks. Facility representatives were unsure of the construction of these tanks. These storage tanks are not owned by the facility but are rented when needed. The storage tanks are placed outdoors east of Boiler Unit No. 7 and west of Boiler Unit No. 8 when the water side of the boilers are cleaned. In previous years, the storage tanks were placed on either a concrete base or gravel base in the same relative locations.
Date of Startup:	This unit began operation in the early 1980s.
Date of Closure:	This unit is inactive. It has been removed from the facility's Part A permit application.
Wastes Managed:	About two of the tanks in this unit manage boiler chemical cleaning wastes (D007) and the remaining six to eight temporary storage tanks manage nonhazardous boiler chemical cleaning rinsates. Hazardous wastes stored in this unit are removed from the facility within 90 days for off-site treatment.
Release Controls:	During chemical cleaning of Boiler Unit No. 7, the unit is placed on a concrete base. Other than that, the unit has no release controls.
History of Documented Releases:	No releases from this unit have been documented.

Observations:	During the VSI, no tanks were located at the facility; therefore, no photograph was taken. PRC observed no evidence of release in the area where the tanks were located.
SWMU 17	**Pure Air Filter Cake Hopper**
Unit Description:	This unit is located in the Pure Air Wastewater Treatment Plant (SWMU 12) on a concrete floor. The unit consists of a 40-cubic-yard hopper that is lined with plastic. Sludge from SWMU 12 is dewatered in a plate and frame filter press. The filter press then opens and drops the waste into the unit. The unit is covered for transport to the LaPorte landfill for disposal. From June to September 1992, the contents of this unit were emptied into the Former Filter Cake Waste Pile (SWMU 19) while the facility awaited permission from IDEM for off-site landfill disposal.
Date of Startup:	This unit began operation in June 1992.
Date of Closure:	This unit is active.
Wastes Managed:	The unit manages nonhazardous Pure Air System filter cake.
Release Controls:	The unit is located on a concrete floor.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, the unit contained about 10 tons of waste. A plastic tarp lines the unit and is used to cover the waste during transport for disposal (see Photograph No. 17). PRC observed no evidence of release.
SWMU 18	**Fly Ash Waste Piles**
Unit Description:	The unit is located south of the outdoor coal pile. This unit is an outdoor staging area for fly ash. Fly ash is removed from the boilers and ducts using a vacuum truck. The fly ash is then placed on the ground until it is transported to a landfill for disposal. The

	unit contained two piles of waste. Each pile measured about 70 feet in diameter.
Date of Startup:	This unit began operation in 1986.
Date of Closure:	This unit is active.
Wastes Managed:	This unit manages nonhazardous fly ash generated when the boilers and ducts are cleaned.
Release Controls:	This unit has no release controls.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, waste vacuumed from the boiler exhaust ducts was deposited in the unit by Combined Plant Services, the facility's maintenance service. During this process, large amounts of dust were produced. The waste was actually stored in two piles while awaiting off-site disposal (see Photograph No. 18).
SWMU 19	**Former Filter Cake Waste Pile**
Unit Description:	This unit was located south of the outdoor coal pile next to the Fly Ash Waste Piles (SWMU 18). This unit was a temporary storage area for filter cake. Wastes were stored in this unit until IDEM granted permission to dispose of the waste in an off-site landfill. Wastes were emptied from the Pure Air Filter Cake Hopper (SWMU 17) onto the ground surface.
Date of Startup:	This unit began operation in June 1992.
Date of Closure:	This unit has been inactive since September 1992.
Wastes Managed:	The unit managed Pure Air System filter cake until the facility received permission to dispose of the material in an off-site landfill.

Release Controls:	This unit had no release controls.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, no waste was stored in this unit. The surrounding area was muddy (see Photograph No. 19).
SWMU 20	**Former Waste Oil UST**
Unit Description:	The unit was located just north of the main building. The unit consisted of a 1,200-gallon steel UST that was installed in 1962. It is not known how wastes were placed in this unit.
Date of Startup:	The unit began operation in 1962.
Date of Closure:	The unit was removed in November 1988.
Wastes Managed:	The unit managed nonhazardous plant waste oil.
Release Controls:	This unit had no release controls.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, the area above the unit contained several empty rusted drums and storage cabinets (see Photograph No. 20). PRC observed that the ground surface below the rusted drums was stained.
SWMU 21	**Unit No. 10 UST**
Unit Description:	The unit is located north of the Unit No. 10 building. The unit consists of a 550-gallon steel UST. The installation date is unknown. This unit is connected to floor drains in the Unit No. 10 building.
Date of Startup:	The date of startup is unknown.

Date of Closure:	This unit is active.
Wastes Managed:	The unit manages nonhazardous oil leaks and spills that reach floor drains in the Unit No. 10 building.
Release Controls:	This unit has no release controls.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, oil dry and oil socks were on the floor of the Unit No. 10 building soaking up leaking oil. The ground surface directly below the unit's stand pipes was stained (see Photograph No. 21).
SWMU 22	**Asbestos Hoppers**
Unit Description:	This unit is located just south of the oil storage service building. The unit is usually contained in a fenced area; however, because of maintenance activities associated with Boiler Unit No. 8, additional hoppers were present for asbestos accumulation. The unit consists of one 15-cubic-yard and two 20-cubic-yard steel hoppers. When full, the hoppers were covered with plastic. Asbestos removed from the boiler units is wetted and placed in plastic bags before being placed in the unit.
Date of Startup:	The startup date for the unit is unknown.
Date of Closure:	The unit is active.
Wastes Managed:	The unit manages nonhazardous asbestos removed from the boiler units.
Release Controls:	The unit consists of steel hoppers placed on the ground surface. Waste is wetted and placed in bags before placement in the unit. When full, the unit is covered with plastic.

History of Documented Releases:	No releases from this unit have been documented
Observations:	During the VSI, 2 extra hoppers were present on site (see Photographs No. 22 and 23). PRC observed no evidence of release.
SWMU 23	**Central Laboratory SAA**
Unit Description:	The unit is located in the central laboratory and consists of a steel book shelf. Wastes from the central laboratory are placed in 3-liter bottles. About two dozen bottles are accumulated, at which time, they are transported to the CSA (SWMU 7) where they are emptied into the 55-gallon drum.
Date of Startup:	PRC believes the unit began operation when the new central laboratory began operation in 1982.
Date of Closure:	This unit is active.
Wastes Managed:	The unit manages central laboratory wastes (D001).
Release Controls:	The unit is located on a tiled floor in the central laboratory.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, eight 3-liter bottles of waste were in the unit on the bottom shelf. Empty bottles were stored on the second shelf. Samples of virgin oil are also stored in the unit prior to testing (see Photograph No. 24). PRC observed no evidence of release.
SWMU 24	**Former Boiler Room SAA**
Unit Description:	The unit was located on a concrete floor on the north end of the main building. The unit consisted of a metal cabinet on a concrete floor. The unit was used to accumulate wastes generated by the Bailly Station laboratory. The wastes were stored in 55-gallon

drums. When full, the drums were moved to either the CSA (SWMU 7) or the Former CSA No. 2 (SWMU 9).

Date of Startup: The unit began operation in 1982.

Date of Closure: The unit has been inactive since July 1992.

Wastes Managed: The unit managed spent freon (F002) generated during oil and grease testing conducted as part of the facility's NPDES permit requirement.

Release Controls: The unit had minimal containment capacity in the bottom of the cabinet. It was located on a concrete floor.

History of Documented Releases: No releases from this unit have been documented.

Observations: The unit was not in use during the VSI. The unit appeared to be rusted at the bottom and was sitting in water. This water was associated with cleaning activities at Boiler Unit No. 8 (see Photograph No. 25). PRC observed no evidence of release.

SWMU 25 **Coal Scrap Pile**

Unit Description: This unit is located at the north end of the coal crusher house near the coal handling maintenance garage. This unit collects coal, metal, and rock pieces. This material is placed directly on the ground surface. The waste is transferred to the unit from the coal crusher via a metal drop chute. The size of the unit was estimated to be 8 by 10 feet.

Date of Startup: PRC believes the unit began operation when the facility began operation in 1962.

Date of Closure: The unit is active.

Wastes Managed:	The unit manages nonhazardous coal crusher scrap that consists of coal, metal, and rock pieces that cannot pass through the coal crusher.
Release Controls:	This unit has no release controls.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, the unit contained a small amount of coal scrap and included metal pieces such as wire and aerosol spray cans (see Photograph No. 26). PRC observed no evidence of release.
SWMU 26	**Coal Handling Maintenance Surface Impoundment**
Unit Description:	The unit is located on the far north end of the facility. Very little is known about this unit. The unit's measurements are estimated to be 40 by 80 feet and the unit was surrounded by a fence. Facility representatives stated that this unit is connected to storm drains located in the coal handling maintenance area and that the contents of the unit are pumped out and hauled away for off-site disposal.
Date of Startup:	PRC believes the unit began operation when the facility began operation in 1962.
Date of Closure:	The unit is active.
Wastes Managed:	This unit manages nonhazardous coal handling maintenance runoff from storm drains in the coal handling maintenance area.
Release Controls:	It is unknown whether the unit is lined or unlined.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	The photograph taken during the VSI did not turn out because of darkness. The unit's measurements were estimated at 40 by 80 feet.

	The surface water level appeared to be about 15 feet bgs. PRC observed no evidence of release.
SWMU 27	**Boiler Units No. 7 and 8**
Unit Description:	This unit consists of two coal-fired high-pressure steam boiler units. Boiler Unit No. 7 is capable of producing 1.2 million pounds of steam per hour at 2,600 pounds per square inch of pressure at 1,000 °F. Boiler Unit No. 7 consists of 4 separate cyclone boilers. Boiler Unit No. 8 consists of 8 separate cyclone boilers and is capable of producing 2.6 million pounds of steam per hour at 3,600 pounds per square inch of pressure at 1,000 °F. Both boilers are located in the north end of the main building, Boiler Unit No. 7 on the east side and Boiler Unit No. 8 on the west side.
Date of Startup:	Boiler Unit No. 7 began operation in 1962 and Boiler Unit No. 8 began operation in 1968.
Date of Closure:	The unit is active.
Wastes Managed:	This unit disposes of nonhazardous boiler chemical cleaning rinsates. The waste is injected directly into either the cyclone boiler or the boilers fire box from the Chemical Cleaning Fractionator Tanks (SWMU 16). If the boiler chemical cleaning wastes are determined to be nonhazardous, they too are disposed in this unit.
Release Controls:	The boiler units are suspended from the ceiling over a concrete sump. This sump also receives water from floor drains in the boiler room and from the turbine room sumps. Sump wastes are pumped to the Settling Ponds (SWMU 4).
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, Boiler Unit No. 7 was operating while Boiler Unit No. 8 was shut down for cleaning (see Photograph No. 27). PRC observed no evidence of release.

4.0 AREAS OF CONCERN

PRC identified one AOC during the PA/VSI. This AOC is discussed below; its location is shown in Figures 2 and 3.

AOC 1 **Empty Drum Storage Area**

Empty drums of virgin oil are stored upside down on a metal grate at this AOC. The drums are allowed to drip onto the gravel ground surface. Empty drums are stored in this area until picked up and returned to the manufacturer for deposit. The ground surface below and around the metal grate was stained with virgin oil. Puddles of virgin oil were apparent directly below several drums. The area of empty drum storage measured about 10 by 25 feet, but the area affected by the oil staining was nearly twice that size (see Photograph No. 28).

5.0 CONCLUSIONS AND RECOMMENDATIONS

The PA/VSI identified 27 SWMUs and 1 AOC at the NIPSCO facility. Background information on the facility's location; operations; waste generating processes and waste management practices; history of documented releases; regulatory history; environmental setting; and receptors is presented in Section 2.0. SWMU-specific information, such as the unit's description, dates of operation, wastes managed, release controls, history of documented releases, and observed condition, is presented in Section 3.0. The AOC is discussed in Section 4.0. Following are PRC's conclusions and recommendations for each SWMU and AOC. Table 3, located at the end of this section, summarizes the SWMUs and AOC at the facility and the recommended further actions.

SWMU 1 **Fly Ash Silo**

Conclusions: Fly ash is pneumatically piped to this unit via enclosed pipes. The waste is solid and is stored in an enclosed silo on a concrete drive. The waste can be wetted prior to transport off site to prevent dust. The potential for release to ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends no further action for this SWMU at this time.

SWMU 2 **Bottom Ash Pond**

Conclusions: This unit receives a bottom-ash slurry and treated sanitary wastes. It is unknown whether the unit is lined or unlined. The bottom ash is a solid and settles to the bottom of the pond. The water mixed with the waste for cooling and transport is recycled from the Settling Ponds (SWMU 4) and the Secondary Settling Pond No. 2 (SWMU 5). The potential for release to environmental media is summarized below.

Ground Water: The potential for release is moderate. If the unit is unlined, pond water could percolate through the permeable soils of the facility and feed the ground-water system.

Surface Water: The potential for release is moderate. Overflow from this unit discharges to SWMU 4, where it is recycled through the plant or discharged to Lake Michigan.

Air: The potential for release is low. Wastes managed in this unit are nonvolatile.

On-Site Soils: If the unit is unlined, waste is placed directly on soil constituting a release by operation. Pond water could percolate through the permeable soils of the facility.

Recommendations: PRC recommends ground-water monitoring around the unit to see if hazardous constituents are in the ground water.

SWMU 3 **Bottom Ash Waste Pile**

Conclusions: Bottom Ash removed from the Bottom Ash Pond (SWMU 2) is placed in this unit for dewatering. Bottom ash is placed directly on the ground surface, which slopes towards SWMU 2. The potential for release to environmental media is summarized below.

Ground Water: The potential for release is moderate. Water from dewatering activities could percolate through the permeable ground surface and enter the ground-water system.

Surface Water: The potential for release is low. Water released from the waste during dewatering is discharged to SWMU 2.

Air: The potential for release is low. The waste managed in this unit is solid and nonvolatile.

On-Site Soils: Waste is place directly on soil, constituting a release by operation. Dewatering of the waste could percolate through the permeable soils of the facility.

Recommendations: PRC recommends ground-water monitoring around the unit to see if hazardous constituents are in the ground water.

SWMU 4 **Settling Ponds**

Conclusions: The unit receives nonhazardous industrial wastewater and overflow from the Bottom Ash Pond (SWMU 2). The unit was lined in 1980 with one

foot of clay and a membrane liner to prevent wastewater from seeping onto the Indiana Dunes. The potential for release to environmental media is summarized below.

Ground Water: The potential for release is moderate. Before 1980, water was seeping from the unit to the Indiana Dunes creating a north-south flow divide by the unlined ponds (Pure Air, 1991).

Surface Water: The potential for release is moderate. The wastewater in this unit is either recycled through the plant or discharged to Lake Michigan.

Air: The potential for release is low. The wastes managed in this unit are nonvolatile

On-Site Soils: The potential for release is low. However, before 1980, water was released from this unit at an estimated rate of 2 million gallons per day through the permeable soils of the facility (Pure Air, 1991).

Recommendations: PRC recommends ground-water monitoring around the unit to see if hazardous constituents are in the ground water.

SWMU 5 **Secondary Settling Pond No. 2**

Conclusions: This unit receives nonhazardous precipitator wash and air heater wash during cleaning activities. In 1980, this unit was separated from the facility's surface impoundments to receive hazardous waste and lined to prevent wastewater from seeping onto the Indiana Dunes. The unit no longer receives hazardous waste. The potential for release to environmental media is summarized below.

Ground Water: The potential for release is moderate. Before 1980, water seeping from the unit to the Indiana Dunes created a north-south flow divide (Pure Air, 1991). In 1981, six ground-water monitoring wells were installed. Cadmium was detected in two wells; coliform counts were exceeded in three wells; and chromium, lead, and nitrate drinking water standards were exceeded in one well.

Surface Water: The potential for release is low. The waste in this unit is treated by the Industrial Wastewater Treatment Plant (SWMU 6) and is then either recycled through the plant or discharged to Lake Michigan.

Air: The potential for release is low. The wastes managed in this unit are nonvolatile.

On-Site Soils: Waste was placed directly on soil constituting a release by operation. Before 1980, water was released from this unit at an estimated rate of 2 million gallons per day through the permeable soils of the facility (Pure Air, 1991).

Recommendations: PRC recommends ground-water monitoring to determine the extent of contamination along with removal of the source or contaminated soils.

SWMU 6 **Industrial Wastewater Treatment Plant**

Conclusions: This unit treats wastewater from the Secondary Settling Pond No. 2 (SWMU 5) before it is recycled though the plant or discharged to Lake Michigan. In the early 1980s, the unit treated hazardous wastes D002 and D007 before they were recycled or discharged to Lake Michigan. The unit has secondary containment consisting of steel tanks and trenches that lead to a sump. The potential for release to environmental media is summarized below.

Ground Water: The potential for release is low. The treated wastes are recycled through the plant or discharged to Lake Michigan in accordance with the facility's NPDES permit.

Surface Water: The potential for release is low. The treated wastewater is recycled through the plant or discharged to Lake Michigan.

Air: The potential for release is low. This unit treats nonvolatile wastes.

On-Site Soils: The potential for release is low. The treated wastewater is recycled through the plant or discharged to Lake Michigan.

Recommendations: PRC recommends no further action for this SWMU at this time.

SWMU 7 **CSA**

Conclusions: This unit is currently used to store hazardous waste for less than 90 days. The unit consists of a steel cabinet with containment capacity for about 55 gallons. This cabinet is located outdoors on the ground surface. Drums are stored covered inside the steel cabinet. Wastes are transferred to the drums using a funnel. The potential for release to ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends no further action for this SWMU at this time.

SWMU 8 **Former CSA No. 1**

Conclusions: This unit underwent RCRA closure in September 1986 and has been inactive since the summer of 1982. The unit was located outdoors and consisted of a concrete slab. Drums of waste were stored covered. The potential for release to ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends no further action for this SWMU at this time.

SWMU 9 **Former CSA No. 2**

Conclusions: This unit underwent RCRA closure in September 1986 and was used until 1990 for less than 90-day storage of hazardous waste. This unit was located outdoors on the ground surface. Drums of waste were stored covered on wooden pallets. The potential for release to ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends no further action for this SWMU at this time.

SWMU 10 **Coal Handling Maintenance Waste Oil Tank System**

Conclusions: This unit consists of a steel containment pan located inside the coal handling maintenance building. This pan sits on a concrete floor. This unit also has a steel aboveground storage tank located outdoors. This tank has a concrete secondary containment area. Waste is pumped from the

steel pan to the storage tank. The potential for release to environmental media is summarized below.

Ground Water: The potential for release is moderate. During the VSI, oil stains were obvious on the ground surface around the perimeter of the storage tank, and the containment area of the storage tank contained about 3 inches of oil.

Surface Water: The potential for release is low. The immediate area is flat. Storm water is managed in the Coal Handling Maintenance Surface Impoundment (SWMU 26).

Air: The potential for release is low. The wastes managed in this unit are nonvolatile

On-Site Soils: During the VSI, oil stains were obvious on the ground surface around the perimeter of the storage tank and the containment area of the storage tank contained about 3 inches of oil.

Recommendations: PRC recommends that the soils surrounding the secondary containment area be removed and properly disposed of, the excavation be sampled to validate that all contaminated soils were removed, and the excavation refilled with clean soil. Need for ground-water monitoring should be evaluated.

SWMU 11 **Plant Waste Oil Tank System**

Conclusions: The unit consists of two steel containment pans located indoors on a concrete floor, and two aboveground storage tanks located outside in a concrete secondary containment area. Waste is pumped from the containment pans to the storage tanks. During the VSI, the condition of the unit was not noted because of darkness. The potential for release to ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends that the facility inspect the unit to verify that releases have not occurred.

SWMU 12 **Pure Air Wastewater Treatment Plant**

Conclusions: This unit treats nonhazardous wastewater generated during wet limestone scrubbing. The treated waste is treated in house before it is discharged to Lake Michigan. Treatment processes are in enclosed tanks in a metal building with a concrete floor. The potential for release to ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends no further action for this SWMU at this time.

SWMU 13 **Pure Air Waste Oil Tank**

Conclusions: The unit is located indoors on a concrete floor and consists of a 200-gallon steel tank in a steel containment pan. Waste is brought to the unit in pails. The wastes managed in this unit are nonvolatile. The potential for release to ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends no further action for this SWMU at this time.

SWMU 14 **North Landfill**

Conclusions: This unit was used to dispose of nonhazardous bottom ash and fly ash. The unit was not lined or capped. The unit's area is estimated to be at least 2.5 acres. The unit has been inactive since 1986. The wastes disposed of in this unit were solid and nonvolatile. The unit is covered with vegetative growth. The potential for release to environmental media is summarized below:

Ground Water: The potential for release is moderate. The unit is not lined or capped. Precipitation could percolate through the unit into the porous ground surface and enter the ground-water system.

Surface Water: The potential for release is low. The waste contained in this unit is buried.

Air: The potential for release is low. The waste contained in this unit is solid, nonvolatile, and buried.

On-Site Soils: Waste was placed directly on soil constituting a release by operation.

Recommendations: PRC recommends ground-water monitoring around the unit to see if hazardous constituents are in the ground water.

SWMU 15 **South Landfill**

Conclusions: This unit was used to dispose of nonhazardous bottom ash and fly ash. The unit was not lined or capped. The unit's area measured about 500 by 1,400 feet in a swampy depression. The unit has been inactive since 1979. The waste disposed of in this unit were solid and nonvolatile. The unit has a gravel surface. The potential for release to environmental media is summarized below.

Ground Water: The potential for release is moderate. The unit is not lined or capped. Precipitation could percolate through the unit into the porous ground surface and enter the ground-water system.

Surface Water: The potential for release is low. The waste contained in this unit is buried.

Air: The potential for release is low. The waste contained in this unit is solid, nonvolatile, and buried.

On-Site Soils: Waste was placed directly on soil constituting a release by operation.

Recommendations: PRC recommends ground-water monitoring around the unit to see if hazardous constituents are in the ground water.

SWMU 16 **Chemical Cleaning Fractionator Tanks**

Conclusions: This unit consists of 8 to 10 temporary storage tanks. The tanks are rented when needed and returned after use. The unit managed nonhazardous waste and hazardous waste (D007). The tanks are placed on concrete and gravel surfaces, depending on their placement. The wastes managed are

nonvolatile. Hazardous wastes are removed within 90 days. The potential for release to ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends no further action for this SWMU at this time.

SWMU 17 **Pure Air Filter Cake Hopper**

Conclusions: This unit receives nonhazardous filter cake from the Pure Air Wastewater Treatment Plant (SWMU 12). The waste managed by this unit is solid and nonvolatile. The unit is lined with plastic located inside SWMU 12 on a concrete floor. The hopper is covered during transport for disposal of the waste. The potential for release to ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends no further action for this SWMU at this time.

SWMU 18 **Fly Ash Waste Piles**

Conclusions: This unit consists of two piles of fly ash waste located outdoors on the ground surface. The wastes managed in this unit are solid and nonvolatile. The potential for release to environmental media is summarized below.

Ground Water: The potential for release is moderate. Waste is placed directly on the ground surface.

Surface Water: The potential for release is low. The immediate area is flat. The unit is located about 1,000 feet from Lake Michigan.

Air: The potential for release is moderate. Off-site migration of waste is possible during periods of high winds.

On-Site Soils: Waste is placed directly on the soil constituting a release by operation.

Recommendations: PRC recommends soil sampling around the unit to see if hazardous constituents are in the soils. Need for ground-water monitoring should be evaluated.

SWMU 19 **Former Filter Cake Waste Pile**

Conclusions: This unit managed filter cake from the Pure Air Filter Cake Hopper (SWMU 17). The unit was located outdoors on the ground surface. The wastes stored in this unit were solid and nonvolatile. Wastes were stored from June to September 1992, until IDEM granted permission to dispose of the waste at a landfill. The potential for release to environmental media is summarized below.

Ground Water: The potential for release is low to moderate. Waste is placed directly on the ground surface.

Surface Water: The potential for release is low. The unit is located about 1,000 feet from Lake Michigan.

Air: The potential for release is low. Waste managed in this unit was solid and nonvolatile.

On-Site Soils: Waste was placed directly on the soil constituting a release by operation.

Recommendations: PRC recommends soil sampling around the unit to see if hazardous constituents are in the soils. Need for ground-water monitoring should be evaluated.

SWMU 20 **Former Waste Oil UST**

Conclusions: The unit consisted of a steel UST installed in 1962. The unit was removed in 1988. The wastes stored in this unit were nonvolatile. Past waste practices were unknown. No soil analysis was found indicating clean closure. The potential for release to ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends that the soil in the area of the former unit be sampled to determine if contamination is present. Need for ground-water monitoring should be evaluated.

SWMU 21 **Unit No. 10 UST**

Conclusions: The unit consisted of a steel UST installed at an unknown date. The unit is connected to floor drains in an auxiliary generation building. The wastes managed in this unit are nonvolatile. The potential for release to environmental media is summarized below.

Ground Water: The potential for release is moderate. The area around the unit's stand pipe was slightly discolored with oil stains. The age and condition of the unit is unknown.

Surface Water: The potential for release is low. The immediate area is a flat gravel surface on which storm water drainage would be minimal.

Air: The potential for release is low. Wastes managed in this unit are nonvolatile.

On-Site Soils: The area around the unit's stand pipe was slightly discolored with oil stains.

Recommendations: PRC recommends the soil in the area around the unit's stand pipe be removed and replaced with clean soil and the unit be leak tested. Need for ground-water monitoring should be evaluated.

SWMU 22 **Asbestos Hoppers**

Conclusions: The unit consists of a steel hopper in a fence-enclosed area located outdoors. On occasion, additional hopers are needed and are placed outside the fenced area. The waste managed in this unit is solid and nonvolatile. The waste is wetted and placed in plastic bags within the hopper. Hoppers are covered when full. The potential for release to ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends no further action for this SWMU at this time.

SWMU 23 **Central Laboratory SAA**

Conclusions: This unit consists of a steel bookshelf located inside the central laboratory on a tiled floor. Wastes are accumulated in 3-liter bottles that are stored on the bookshelf. The potential for release to ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends no further action for this SWMU at this time.

SWMU 24 **Former Boiler Room SAA**

Conclusions: This unit consists of a steel cabinet located inside the facility building on a concrete floor. The unit had minimal containment capacity in the bottom of the cabinet. Drums of waste were stored covered. The unit has been inactive since 1992. The potential for release to ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends no further action for this SWMU at this time.

SWMU 25 **Coal Scrap Pile**

Conclusions: The unit consisted of nonhazardous waste that could not pass through the coal crusher. The unit is located outdoors on the ground surface. Wastes managed in this unit were solid and nonvolatile. The immediate area was flat and stormwater runoff is managed in the Coal Handling Maintenance Surface Impoundment (SWMU 26). The potential for release to environmental media is summarized below.

Ground Water: The potential for release is low to moderate. The scrap is placed directly on the ground surface.

Surface Water: The potential for release is low. Surface water runoff in the area of this unit is managed in the Coal Handling Maintenance Surface Impoundment (SWMU 26).

Air: The potential for release is low. Wastes managed in this unit are solid and nonvolatile.

On-Site Soils: Waste is placed directly on soil constituting a release by operation.

Recommendations: PRC recommends soil sampling around the unit to see if hazardous constituents are in the soils.

SWMU 26 **Coal Handling Maintenance Surface Impoundment**

Conclusions: This unit collects storm water runoff from the coal handling maintenance area. The wastes are pumped out of the impoundment and taken off site for disposal. It is not known if this unit is lined. The wastes stored in this unit are nonvolatile. The potential for release to environmental media is summarized below.

Ground Water: The potential for release is moderate. If the unit is not lined, the contents of the unit could percolate through the permeable soils of the facility to the ground-water system.

Surface Water: The potential for release is low. The unit is located several hundred feet from Lake Michigan.

Air: The potential for release is low. Wastes managed in this unit are nonvolatile.

On-Site Soils: If the unit is unlined, waste is placed directly on soil constituting a release by operation. The contents of the unit could percolate through the permeable soils of the facility.

Recommendations: PRC recommends ground-water monitoring around the unit to see if hazardous constituents are in the ground water.

SWMU 27 **Boiler Units No. 7 and 8**

Conclusions: The unit is suspended from the ceiling over a concrete sump that leads to the Settling Ponds (SWMU 4). This unit disposes of nonhazardous boiler chemical cleaning rinsate through evaporation. The waste is injected directly from the Chemical Cleaning Fractionator Tanks (SWMU 16) into the boiler unit's fire boxes. The waste managed in this unit is nonvolatile.

The potential for release to ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends no further action for this SWMU at this time.

AOC 1 **Empty Drum Storage**

Conclusions: The unit is used to store inverted empty drums that contained virgin oil. Any virgin oil that remains in the drums is allowed to drain onto the ground surface. Stained soil and puddles of virgin oil were apparent on the ground surface.

Ground Water: The potential for release is moderate. Virgin oil was apparent on the ground surface and could percolate through the permeable soils of the facility to the ground-water system.

Surface Water: The potential for release is low. The immediate area is flat. The unit is located about 600 feet from Lake Michigan.

Air: The potential for release is low. The virgin oil is nonvolatile.

On-Site Soils: Virgin oil was apparent on the ground surface.

Recommendations: PRC recommends that the contaminated soil be removed and the excavation be sampled to determine the presence of any lingering contamination. The excavation should be backfilled with clean material after sampling has determined that no contamination is present. Need for ground-water monitoring should be evaluated. Furthermore, inverted drums should be stored over a containment pan that can be pumped out when necessary.

TABLE 3

SWMU AND AOC SUMMARY

SWMU	Dates of Operation	Evidence of Release	Recommended Further Action
1. Fly Ash Silo	About 1980 to present	None	No further action
2. Bottom Ash Pond	About 1962 to present	None	Ground-water monitoring
3. Bottom Ash Waste Pile	About 1962 to present	None	Ground-water monitoring
4. Settling Ponds	About 1962 to present	Before 1980, water was released from this unit at an estimated rate of 2 million gallons per day through the porous soils of the facility	Ground-water monitoring
5. Secondary Settling Pond No. 2	About 1962 to present	Before 1980 water was released from this unit at an estimated rate of 2 million gallons per day through the porous soils of the facility.	Ground-water monitoring to determine the extent of contamination along with removal of contaminated soils
6. Industrial Wastewater Treatment Pond	About 1980 to present	None	No further action
7. CSA	1990 to present	None	No further action
8. Former CSA No. 1	Spring 1981 to Summer 1986	None	No further action
9. Former CSA No. 2	1982 to 1990	None	No further action

TABLE 3 (Continued)
SWMU AND AOC SUMMARY

SWMU	Dates of Operation	Evidence of Release	Recommended Further Action
10. Coal Handling Maintenance Waste Oil Tank	Unknown to present	Oil stains were obvious on the ground surface around the perimeter of the storage tank and the containment area contained about 3 inches of oil	The soils surrounding the secondary containment area should be removed, the excavation sampled to validate that all containment soils have been removed, and the excavation be filled with clean soil; evaluate need for ground-water monitoring
11. Plant Waste Oil Tank System	Unknown to present	PRC was unable to observe the condition of the unit because of darkness	The unit should be inspected to verify that releases have not occurred
12. Pure Air Wastewater Treatment Plant	June 1992 to present	None	No further action
13. Pure Air Waste Oil Tank	June 1992 to present	None	No further action
14. North Landfill	About 1962 to 1986	None	Ground-water monitoring
15. South Landfill	About 1965 to 1979	None	Ground-water monitoring
16. Chemical Cleaning Fractionator Tank	Early 1980 to present	None	No further action
17. Pure Air Filter Cake Hopper	June 1992 to present	None	No further action
18. Fly Ash Waste Piles	1986 to present	None	Soil sampling; evaluate need for ground-water monitoring

TABLE 3 (Continued)
SWMU AND AOC SUMMARY

SWMU	Dates of Operation	Evidence of Release	Recommended Further Action
19. Former Filter Cake Waste Pile	June 1992 to September 1992	None	Soil sampling; evaluate need for ground-water monitoring
20. Former Waste Oil UST	1962 to November 1988	None	Subsurface soil should be sampled to determine if contamination is present; evaluate need for ground-water monitoring
21. Unit No. 10 UST	Unknown to present	None	The soils surrounding the unit's stand pipe should be removed and replaced with clean soil. The unit should be leak tested. Evaluate need for ground-water monitoring
22. Asbestos Hoppers	Unknown to present	None	No further action
23. Central Laboratory SAA	About 1982 to present	None	No further action
24. Former Boiler Room SAA	1982 to July 1992	None	No further action
25. Coal Scrap Pile	About 1962 to present	None	Soil sampling
26. Coal Handling Maintenance Surface Impoundment	About 1962 to present	None	Ground-water monitoring

TABLE 3 (Continued)
SWMU AND AOC SUMMARY

SWMU	Dates of Operation	Evidence of Release	Recommended Further Action
27. Boiler Units No. 7 and 8	1962 and 1968, respectively to present	None	No further action

AOC	Evidence of Release	Recommended Further Action	Dates of Operation
1. Empty Drum Storage Area	Unknown to present	During the VSI, virgin oil was apparent on the soil surface	The contaminated soil should be removed, the excavation sampled to ensure contamination removal is complete, and the area be backfilled with clean material. Evaluate need for ground-water monitoring. Inverted drums should be stored over a containment pan that can be pumped out when necessary

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NIPSCO, 1990a. Letter from M.T. Maassel, Manager Environmental Programs, to Paul Cluxton, Acting Chief, Enforcement Section, March 19.

NIPSCO, 1990b. Letter from Mark T. Maassel, Manager Environmental Programs, to IDEM, Enforcement Section, September 18.

NIPSCO, 1990c. Letter from M.T. Maassel, Manager, Environmental Programs, to IDEM, Office of Environmental Response, December 1.

NIPSCO, 1990d. Letter from Mark T. Maassel, Manager, Environmental Programs, to IDEM, Office of Environmental Response, December 5.

NIPSCO, 1991a. Letter from C.W. Kern, Director of Environmental Affairs and Services, to Tim Method, Assistant Commissioner, IDEM, February 20.

NIPSCO, 1991b. Letter from Charles W. Kern, Director of Environmental Affairs and Fuels, to IDEM, Enforcement Section, May 24.

NIPSCO, 1991c. Letter from C.W. Kern, Director of Environmental Affairs and Fuels, to IDEM Enforcement Section, Office of Water Management, July 5.

NIPSCO, 1991d. Letter from Charles W. Kern, Director of Environmental Affairs and Fuels, to IDEM, Enforcement Section, October 7.

NIPSCO, 1992. Letter from Arthur E. Smith, Jr., Environmental Counsel and Manager of Environmental Affairs, to Rich Roudebush, Solid and Hazardous Waste Management, IDEM, October 8.

NIPSCO, 1993. Facsimile from Dale Helmers to Keith Foszcz, PRC Environmental Management, Inc. (PRC), February 9.

PRC Environmental Management, Inc. (PRC), 1991. Preliminary Assessment and Visual Site Inspection Report, U.S. Can Company, Burns Harbor, Indiana, Jeff Swano, December 4.

PRC, 1992a. Letter from Keith Foszcz, Lead Inspector, to Dale A. Helmers, Environmental Project Supervisor, NIPSCO Southlake Complex, December 11.

PRC, 1992b. Record of Telephone Conversation Between Keith Foszcz and Jim Perry, Valporaiso Planning Department, December 21.

Pure Air on the Lake, Limited Partnership C/O Air Products and Chemicals, Inc. (Pure Air), 1991. Final Environmental Monitoring Plan for Bailly Generating Station Advanced Flue Gas Desulfurization Project, January.

U.S. Department of Agriculture (USDA), 1981. Soil Survey of Porter County, Indiana, Soil Conservation Service, February.

U.S. Department of Commerce (USDC), 1963. Rainfall Frequency Atlas of the United States, Technical Paper No. 40, U.S. Government Printing Office, Washington D.C.

USDC, 1968. Climatic Atlas of the United States, U.S. Government Printing Office, Washington D.C.

U.S. Department of Interior (USDI), 1978. Agreement between the USDI and NIPSCO, Robert L. Herbst, Assistant Secretary for Fish and Wildlife and Parks, February 7.

USDI, 1989. Endangered Species List, U.S. Fish and Wildlife Service, Division of Endangered Species, October 13.

U.S. Geological Survey (USGS), 1968. Chesterton, Dunes Acres, Ogden Dunes, and Portage Quadrangles, Indiana, 7.5-Minute Series Topographic Maps.

ATTACHMENT A

EPA PRELIMINARY ASSESSMENT FORM 2070-12

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IN	IND 000 718 114

II. SITE NAME AND LOCATION

01 SITE NAME *(Legal, common, or descriptive name of site)*	02 STREET, ROUTE NO. OR SPECIFIC LOCATION IDENTIFIER				
Northern Indiana Public Service Company Bailly Generating Station (NIPSCO)	246 Bailly Station Road				
03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Chesterton	IN	46304-9756	Porter	127	
09 COORDINATES: LATITUDE 41°38'40" N | LONGITUDE 87°05'20" W					

10 DIRECTIONS TO SITE *(Starting from nearest public road)*
From Interstate 94, take 249 north to Rt. 12 east, to Bailly Station Road north.

III. RESPONSIBLE PARTIES

01 OWNER *(if known)*	02 STREET *(Business, mailing residential)*		
Northern Indiana Public Service Company	5265 Hohman Avenue		
03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Hammond	IN	46325	(219) 853-5200
07 OPERATOR *(If known and different from owner)*	08 STREET *(Business, mailing, residential)*		
Same			
09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER

13 TYPE OF OWNERSHIP *(Check one)*
■ A. PRIVATE ☐ B. FEDERAL: _____ *(Agency Name)* ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER _____ *(Specify)* ☐ G. UNKNOWN

14. OWNER/OPERATOR NOTIFICATION ON FILE *(Check all that apply)*
■ A. RCRA 3010 DATE RECEIVED: 08 /18 /80 (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE *(CERCLA 103 c)* DATE RECEIVED: / / (MONTH DAY YEAR) ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
■ YES DATE 12/3/92
☐ NO

BY *(Check all that apply)*
☐ A. EPA ■ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ *(Specify)*

CONTRACTOR NAME(S): PRC Environmental Management, Inc. (PRC)

02 SITE STATUS *(Check one)*
■ A. ACTIVE ☐ B. INACTIVE ☐ C.UNKNOWN

03 YEARS OF OPERATION
1962 (BEGINNING YEAR) Present (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
Hazardous wastes currently handled by NIPSCO include boiler chemical cleaning waste, stoddard solvent, 1,1,1-trichloroethane, and freon. Hazardous wastes formerly handled by NIPSCO include spent hydrochloric acid boiler cleaning waste.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
Surface soil contamination was observed during the VSI. Contamination may include oily waste. Unlined landfills exist on site that contain fly ash and bottom ash from coal-fired steam boilers. Before 1980, wastes that may have contained chromium were placed directly on the ground surface.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION *(Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents.)*

☐ A. HIGH *(Inspection required promptly)* ■ B. MEDIUM *(Inspection required)* ☐ C. LOW *(Inspect on time-available basis)* ☐ D. NONE *(No further action needed; complete current disposition form)*

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF *(Agency/Organization)*		03 TELEPHONE NUMBER
Kevin Pierard	U.S. EPA		(312) 886-4448
04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Keith Foszcz		PRC	(414) 821-5894	12 / 25 / 92 (MONTH DAY YEAR)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IN	IND 000 718 114

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES *(Check all that apply)*

- ■ A. SOLID
- ☐ B. POWDER, FINES
- ☐ C. SLUDGE
- ☐ D. OTHER _____ *(Specify)*
- ☐ E. SLURRY
- ■ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE
(Measures of waste quantities must be independent)

TON Unknown

CUBIC YARDS _____

NO. OF DRUMS 1

03 WASTE CHARACTERISTICS *(Check all that apply)*

- ■ A. TOXIC
- ■ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☐ D. PERSISTENT
- ☐ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☐ G. INFLAMMABLE
- ■ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	>240	Tons/year	Generated from treatment of process water
OLW	OILY WASTE	>220	Gallons/year	Maintenance of machinery
SOL	SOLVENTS	Unknown		1,1,1-trichloroethane from degreasing and freon from testing
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS	158,000	Gallons	Former boiler cleaning waste
BAS	BASES			
MES	HEAVY METALS	40,000	Gallons	Chromium contaminated boiler cleaning waste

IV. HAZARDOUS SUBSTANCES *(See Appendix for most frequently cited CAS Numbers)*

CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
MES	Boiler cleaning waste		TA		
OCC	Spent mineral spirits		Off site		
SOL	Stoddard solvents		DR		
SOL	1,1,1-trichloroethane	71-55-6	DR		
SOL	Spent freon		DR		
ACD	Boiler cleaning waste		Surface impoundment		

V. FEEDSTOCKS *(See Appendix for CAS Numbers)*

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION *(Cite specific references; e.g., state files, sample analysis, reports)*

U.S. EPA Files
Indiana Department of Environmental Management Files
Visual Site Inspection

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE: IN	02 SITE NUMBER: IND 000 718 114

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ■ A. GROUNDWATER CONTAMINATION — 02 □ OBSERVED (DATE: _____) — ■ POTENTIAL — □ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown — 04 NARRATIVE DESCRIPTION

Surface soil contamination was observed during the VSI. Contamination may include oily wastes. Unlined landfills exist on site that contain fly ash and bottom ash from coal-fired steam boilers. Before 1980, boiler cleaning wastes that may have contained chromium were discharged to unlined surface impoundments. Residential wells are located about 0.25 mile from NIPSCO.

01 □ B. SURFACE WATER CONTAMINATION — 02 □ OBSERVED (DATE: _____) — □ POTENTIAL — □ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

None

01 □ C. CONTAMINATION OF AIR — 02 □ OBSERVED (DATE: _____) — □ POTENTIAL — □ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

None

01 □ D. FIRE/EXPLOSIVE CONDITIONS — 02 □ OBSERVED (DATE: _____) — □ POTENTIAL — □ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

None

01 ■ E. DIRECT CONTACT — 02 □ OBSERVED (DATE: _____) — ■ POTENTIAL — □ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown — 04 NARRATIVE DESCRIPTION

Surface soil contamination was observed during the VSI. Contamination may include oily wastes. Facility access is controlled by a fence and security guards at gate entrances.

01 ■ F. CONTAMINATION OF SOIL — 02 □ OBSERVED (DATE: _____) — ■ POTENTIAL — □ ALLEGED
03 AREA POTENTIALLY AFFECTED: Unknown (Acres) — 04 NARRATIVE DESCRIPTION

Surface soil contamination was observed during the VSI. Contamination may include oily wastes. Wastes that may contain chromium were placed directly on the ground surface constituting a release by operation.

01 ■ G. DRINKING WATER CONTAMINATION — 02 □ OBSERVED (DATE: _____) — ■ POTENTIAL — □ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown — 04 NARRATIVE DESCRIPTION

Cadmium, chromium, and lead have been detected above drinking water standards in ground-water monitoring wells around the surface impoundments above drinking water standards.

01 ■ H. WORKER EXPOSURE/INJURY — 02 □ OBSERVED (DATE: _____) — ■ POTENTIAL — □ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 180 — 04 NARRATIVE DESCRIPTION

See Section E, above.

01 □ I. POPULATION EXPOSURE/INJURY — 02 □ OBSERVED (DATE: _____) — □ POTENTIAL — □ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

None

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IN	IND 000 718 114

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE:_____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE:_____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE:_____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES — 02 ☐ OBSERVED (DATE:_____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

None

01 ☐ N. DAMAGE TO OFF-SITE PROPERTY — 02 ☐ OBSERVED (DATE:_____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None

01 ☐ O. CONTAMINATION OF SEWERS, DRAINS, WWTPS — 02 ☐ OBSERVED (DATE:_____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE:_____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

None

III. TOTAL POPULATION POTENTIALLY AFFECTED: Unknown

IV. COMMENTS

Because the facility is located in an industrial area, the total population potentially affected is probably small. The facility is adjacent to Lake Michigan.

V. SOURCES OF INFORMATION ***(Cite specific references; e.g., state files, sample analysis, reports)***

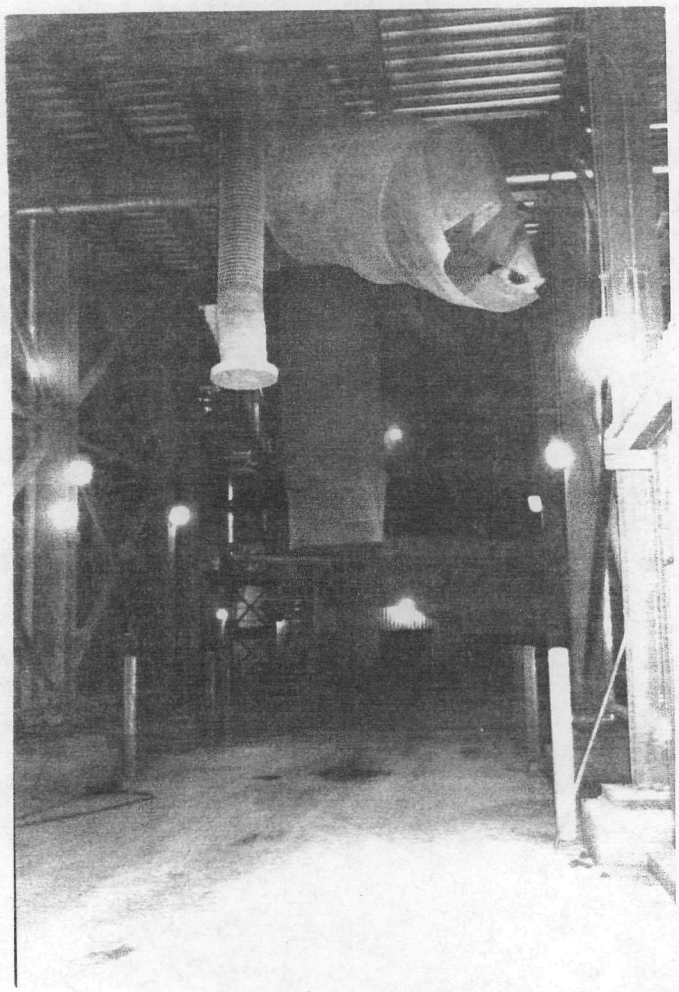
U.S. EPA Files
Indiana Department of Environmental Management Files
Visual Site Inspection

ATTACHMENT B
VISUAL SITE INSPECTION SUMMARY AND PHOTOGRAPHS

VISUAL SITE INSPECTION SUMMARY

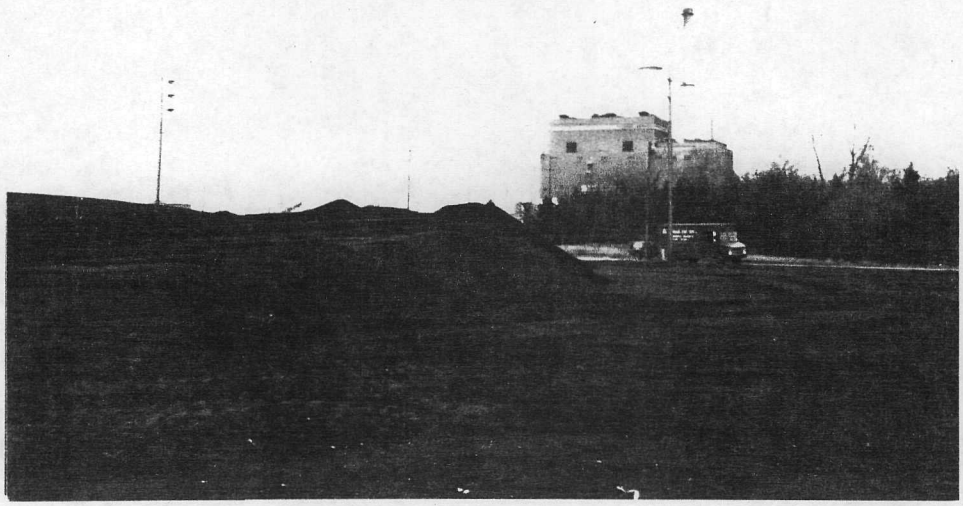
Northern Indiana Public Service Company Bailly Generating Station (NIPSCO)
246 Bailly Station Road
Chesterton, Indiana 46304-9756
IND 000 718 114

Date:	December 3, 1992
Primary Facility Representative:	Patrick J. Tanski, Environmental Operations Specialist
Representative Telephone No.:	(219) 787-7325
Additional Facility Representatives:	Dale A. Helmers, Environmental Project Supervisor David A. Styf, Chief Chemist
Inspection Team:	Keith Foszcz, PRC Environmental Management, Inc. (PRC) Jeff Swano, PRC
Photographer:	Jeff Swano, PRC
Weather Conditions:	Windy, partly cloudy, temperature about 30 °F
Summary of Activities:	The visual site inspection (VSI) began at 9:20 a.m. with an introductory meeting. The inspection team explained the purpose of the VSI and the agenda for the visit. Facility representatives then discussed the facility's past and current operations, solid wastes generated, and release history. Facility representatives provided the inspection team with copies of the requested documents. Additional information regarding waste management and SWMU history was requested and will be mailed to PRC. The VSI tour began at 1:50 p.m. NIPSCO representatives discussed specific operations conducted at the facility as the tour progressed. PRC inspected container storage areas, treatment plants, satellite accumulation areas, wastewater treatment plants, landfills, settling ponds, waste oil tanks, waste piles, USTs, and boiler units. Photographs were taken of most SWMUs. The tour concluded at 5:55 p.m., after which the inspection team held an exit meeting with facility representatives. The VSI was completed and the inspection team left the facility at 6:10 p.m.



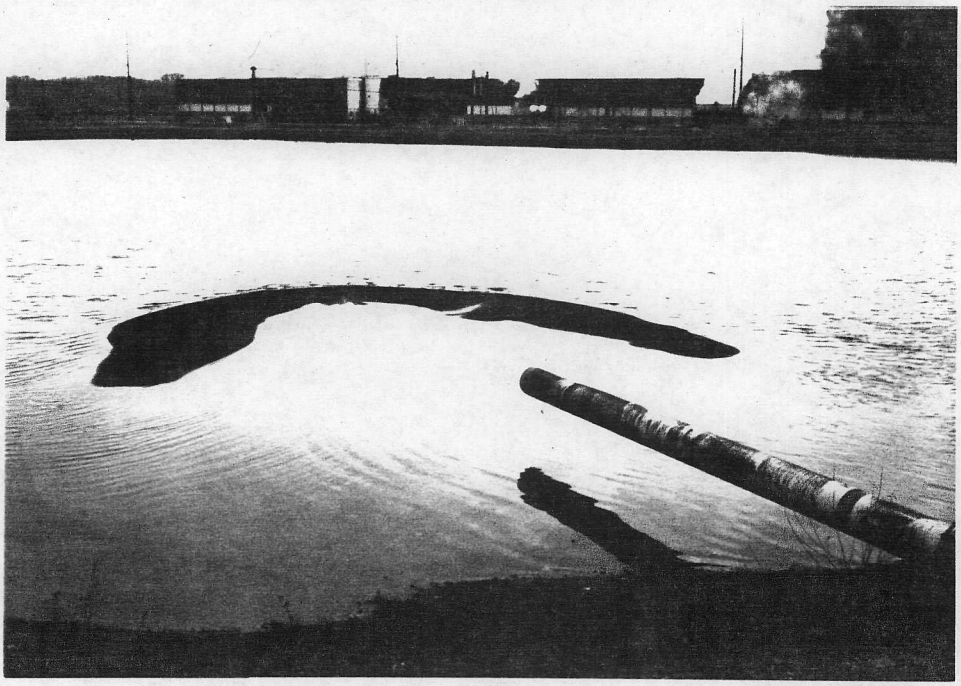
Photograph No. 1 Location: SWMU 1
Orientation: Southeast Date: December 3, 1992
Description: Fly ash removed from the flue gas of the boiler units is pneumatically piped to this unit. The unit is elevated so that trucks can drive underneath the unit to receive waste from the chute shown.

Photograph No. 2 Location: SWMU 2
Orientation: West Date: December 3, 1992
Description: Bottom ash is directed to this unit via pipes from the boiler units.

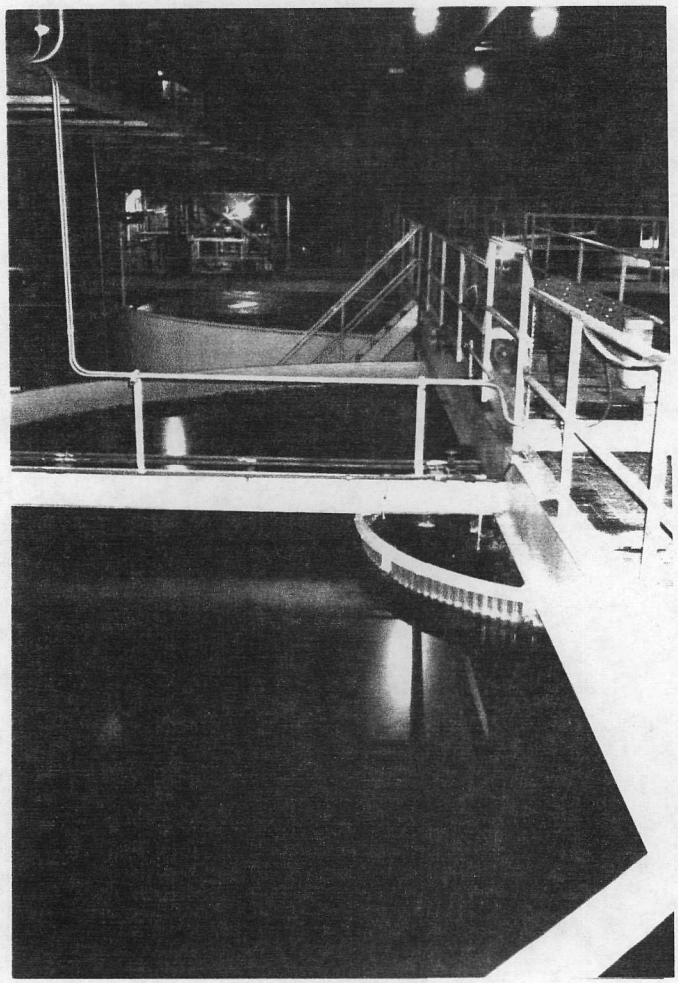


Photograph No. 3 Location: SWMU 3
Orientation: North Date: December 3, 1992
Description: Bottom ash removed from the Bottom Ash Pond (SWMU 3) is placed in this unit for further dewatering. The facility building is shown in the background.

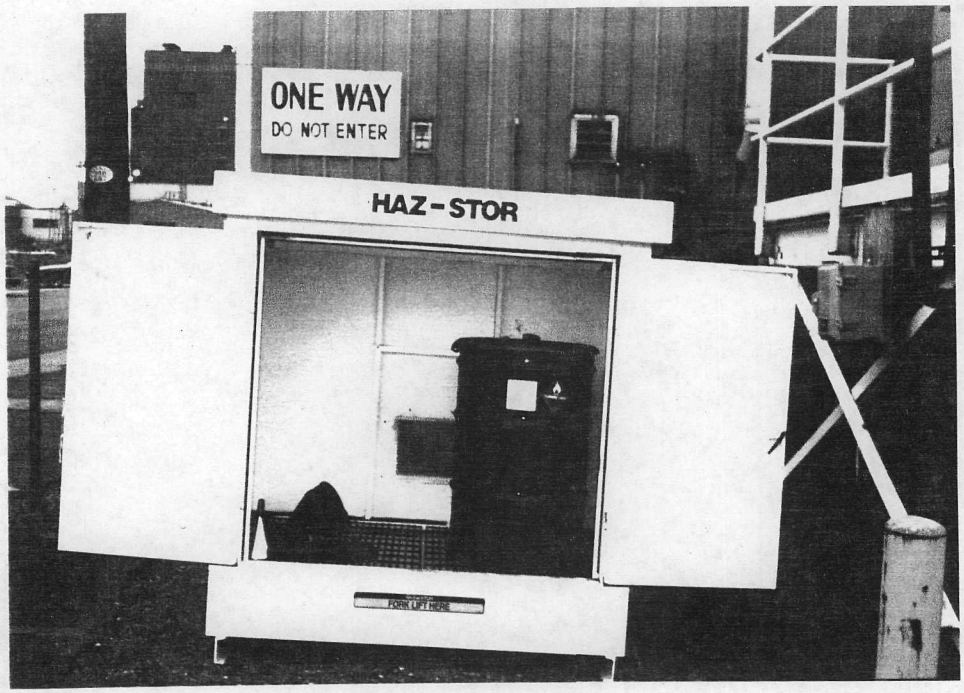
Photograph No. 4 Location: SWMU 4
Orientation: East Date: December 3, 1992
Description: Wetland-type vegetation is growing in Primary Settling Pond No. 1.



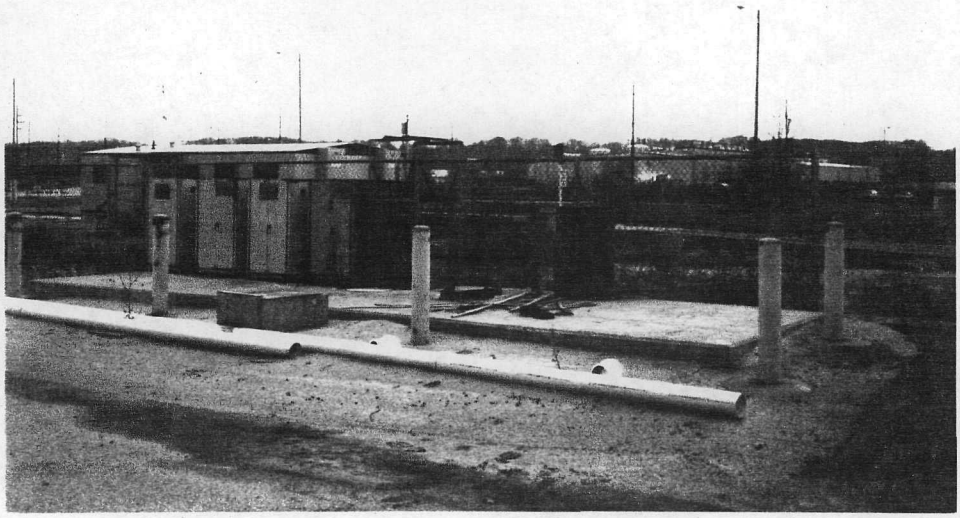
Photograph No. 5 Location: SWMU 5
Orientation: South Date: December 3, 1992
Description: Wastes are discharged to this unit through the 12-inch diameter pipe shown. Note the orange colored sediments and shoreline above the water table.



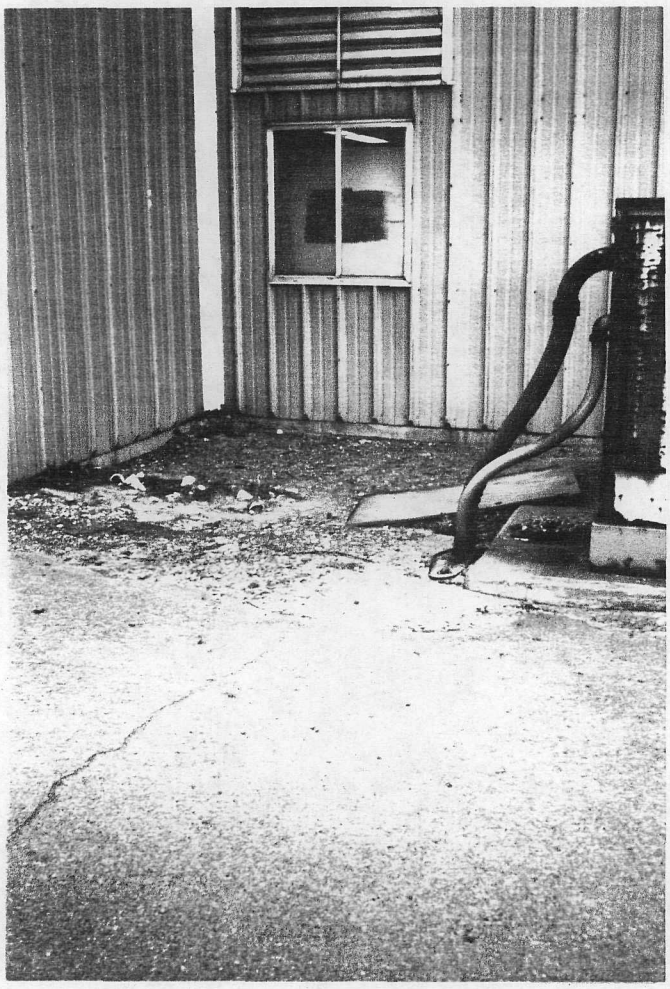
Photograph No. 6 Location: SWMU 6
Orientation: South Date: December 3, 1992
Description: This view from inside the building overlooks the two 162,000-gallon clarifiers. See Photograph No. 15 for an outside view of the building.



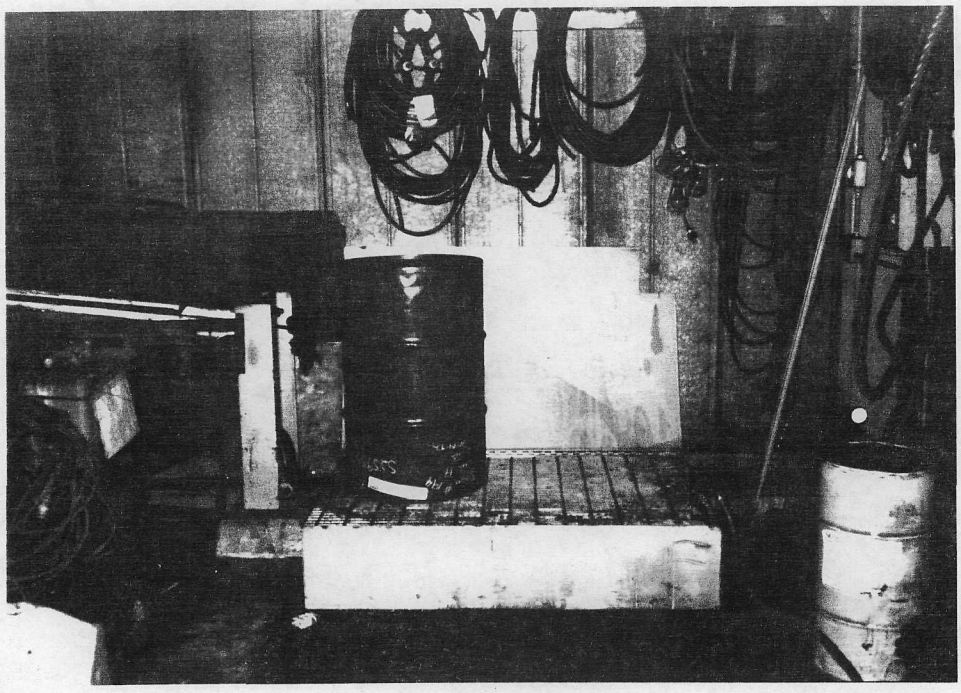
Photograph No. 7 Location: SWMU 7
Orientation: North Date: December 3, 1992
Description: Wastes are brought to this unit in 3 liter polypropylene bottles and transferred to the 55-gallon drum using the funnel shown in the bottom of the unit.



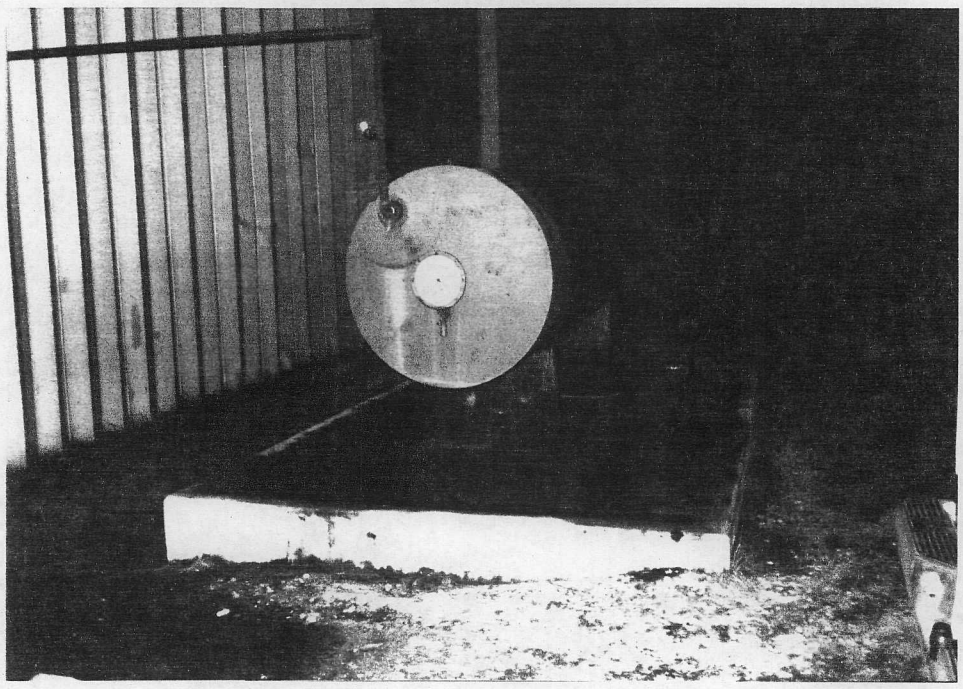
Photograph No. 8 Location: SWMU 8
Orientation: Southeast Date: December 3, 1992
Description: Drums of wastes were stored on the concrete pad. Containers of raw chemicals were stored in the yellow cabinets on the concrete pad.



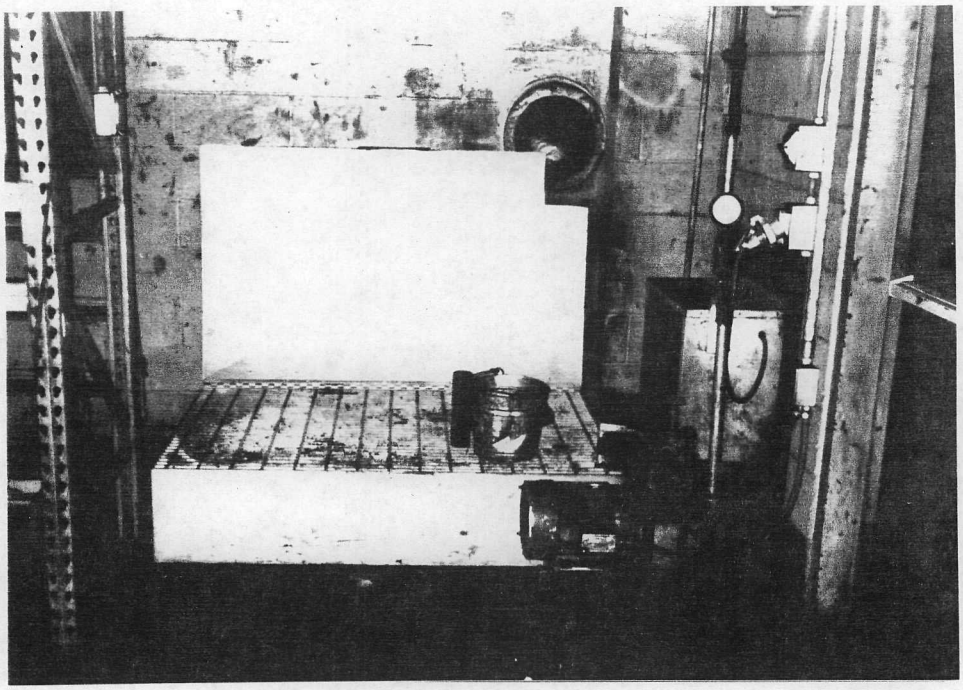
Photograph No. 9 Location: SWMU 9
Orientation: South Date: December 3, 1992
Description: Drums of waste were stored on wooden pallets on the ground in this unit.



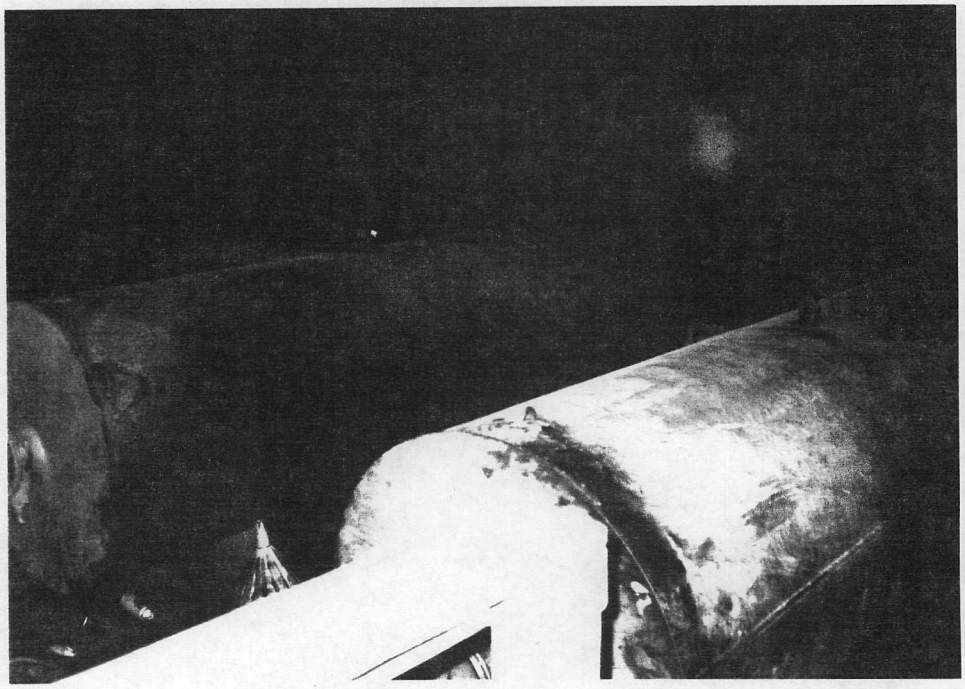
Photograph No. 10 Location: SWMU 10
Orientation: North Date: December 3, 1992
Description: Waste oil is brought to this unit and emptied into the containment pan. When full, oil in the containment pan is pumped to the unit's storage tank. Waste oil containers and virgin oil drums are stored in an inverted position on the containment pan to further drain the contents.



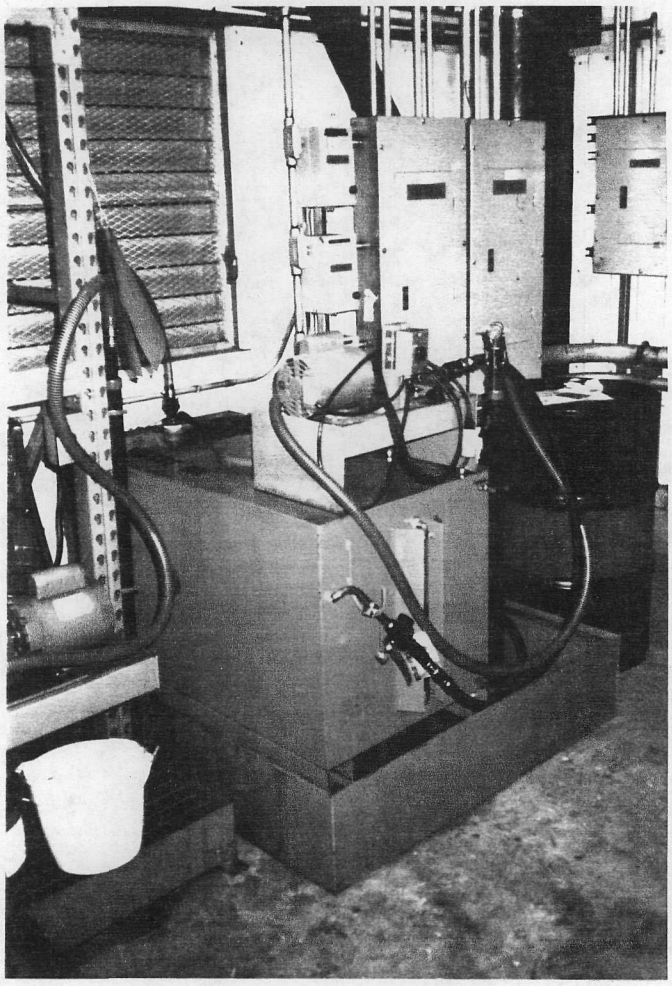
Photograph No. 11 Location: SWMU 10
Orientation: West Date: December 2, 1992
Description: Waste oil pumped out of the containment pan in Photograph No. 10 is directed to this storage tank. Note the oil stains around the perimeter of the containment curb and the oil content inside the containment area of the unit



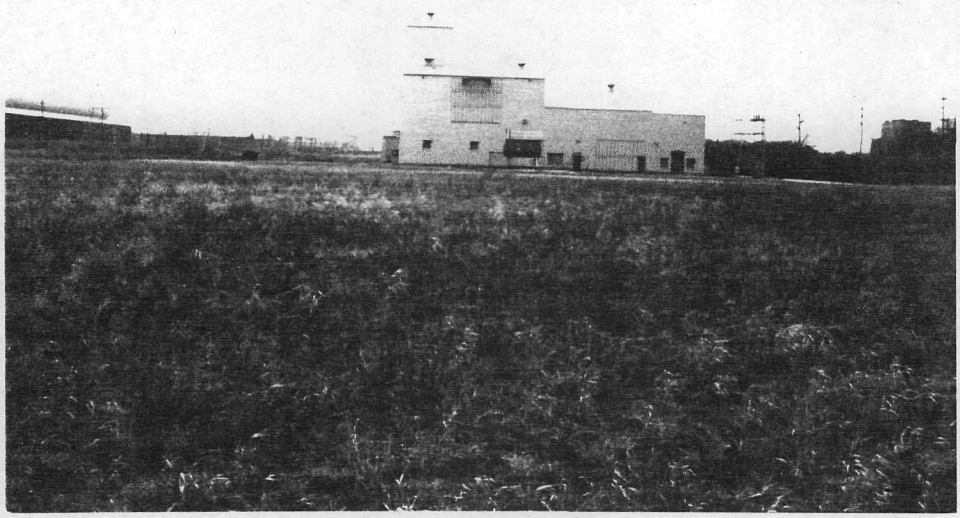
Photograph No. 12 Location: SWMU 11
Orientation: West Date: December 3, 1992
Description: One of the containment pans of this unit is shown. Waste oil is brought to the containment pans and emptied. When full, oil in the containment pan is pumped to the unit's storage tanks. Note the sump in the floor. This sump is also pumped to the storage tanks.



Photograph No. 13 Location: SWMU 11
Orientation: East Date: December 3, 1992
Description: Waste oil pumped out of the containment pans and sump shown in Photograph No. 12 is directed to these storage tanks.



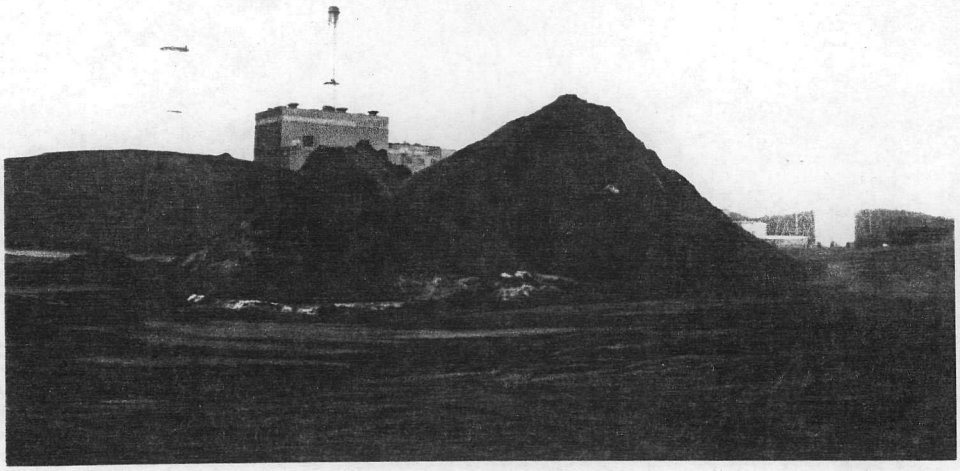
Photograph No. 14 Location: SWMU 12
Orientation: Northeast Date: December 3, 1992
Description: Waste oil is stored in this unit. Wastes are brought to the unit in small pails that are pumped out. The containment pan below the unit was dry.



Photograph No. 15 Location: SWMU 14
Orientation: West Date: December 3, 1992
Description: The unit was covered with vegetation. The soil covering the unit was sandy. The building in the background is SWMU 6.

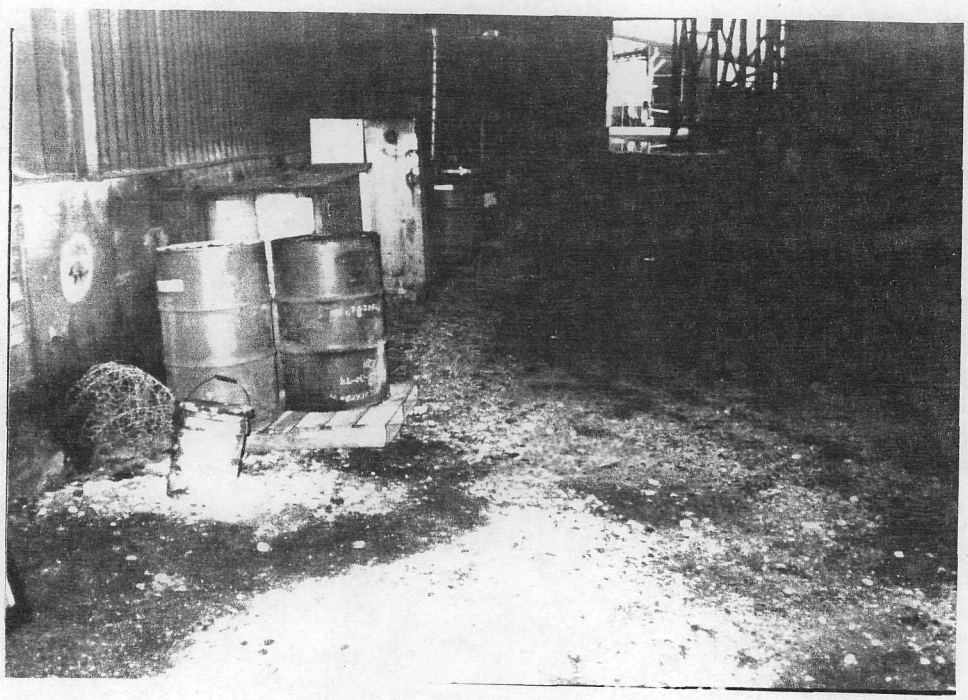
Photograph No. 16 Location: SWMU 15
Orientation: North Date: December 3, 1992
Description: The unit is currently used to store scrap steel over the buried waste. Very little vegetation exists over the unit. Soil covering the unit was gravel.

Photograph No. 17 Location: SWMU 17
Orientation: North Date: December 3, 1992
Description: Filter cake drops from the filter press directly into this unit.



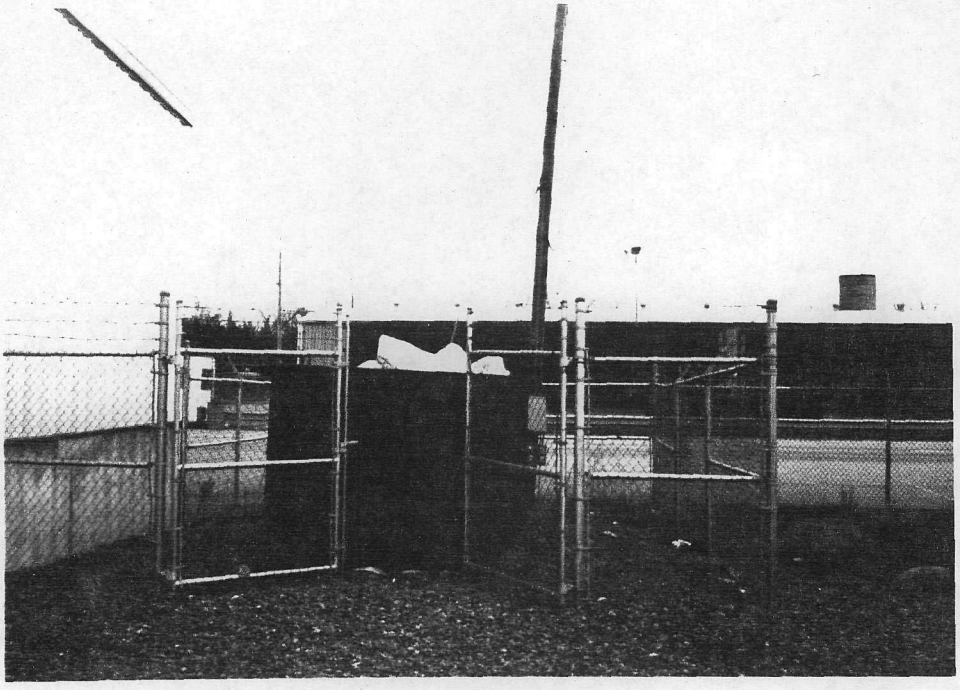
Photograph No. 18 Location: SWMU 18
Orientation: Northeast Date: December 3, 1992
Description: Fly ash vacuumed from the duct work of the flue gas system is stored uncovered in this unit.

Photograph No. 19 Location: SWMU 19
Orientation: East Date: December 3, 1992
Description: Filter cake was stored uncovered between these two piles while the facility awaits IDEM approval for landfill disposal.



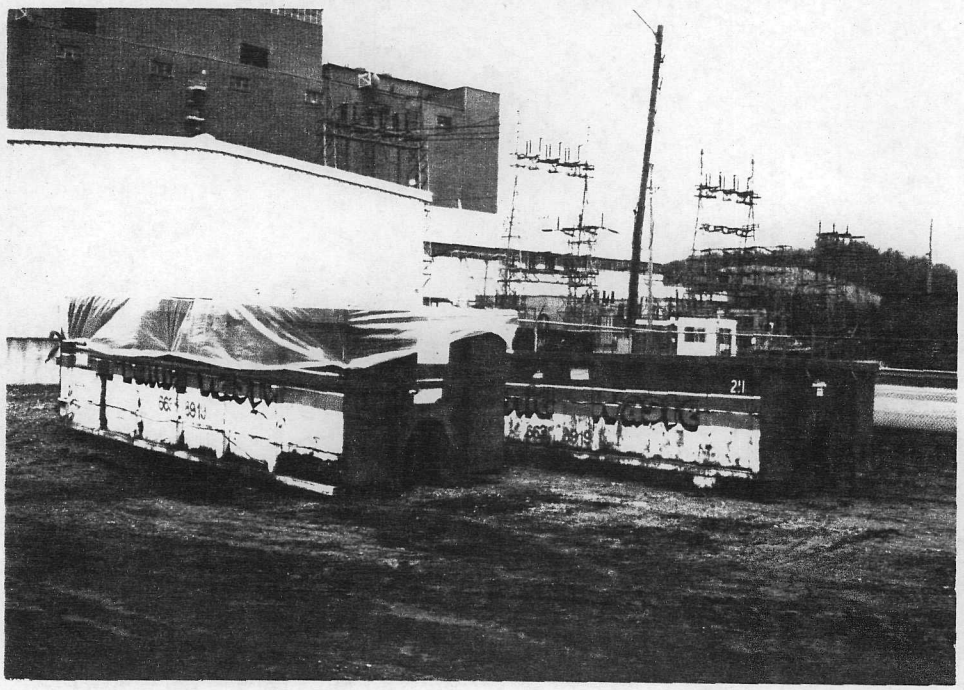
Photograph No. 20
Orientation: West
Location: SWMU 20
Date: December 3, 1992
Description: Waste oil was discharged to this unit. The area above the unit is used to store old drums and chemical cabinets.

Photograph No. 21
Orientation: East
Location: SWMU 21
Date: December 3, 1992
Description: Floor drains from Unit No. 10 building drain to this unit.



Photograph No. 22
Orientation: East
Description: Bags of asbestos insulation are placed in this hopper.

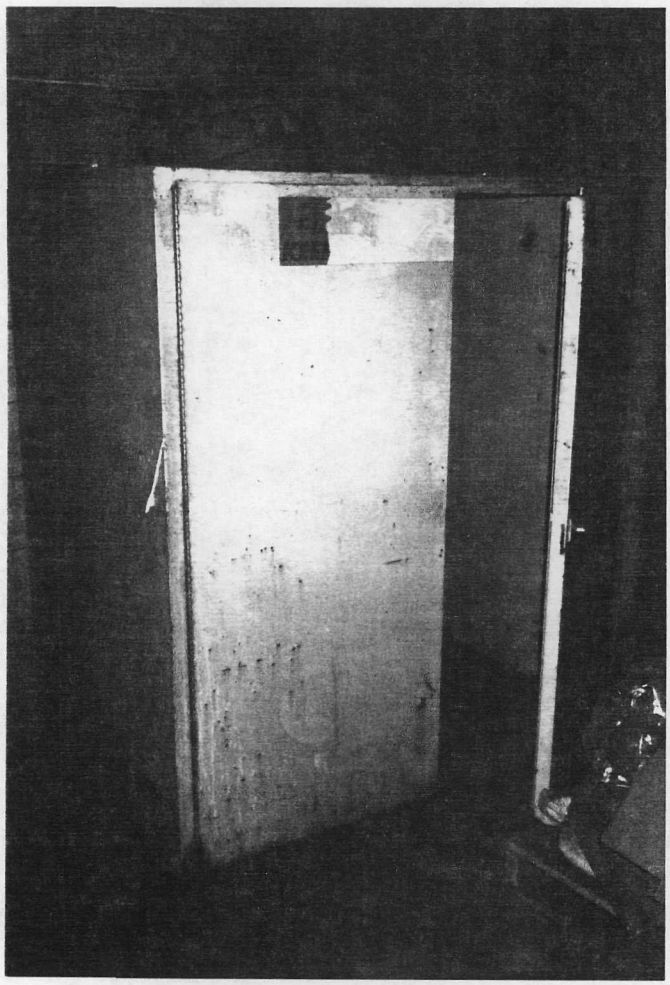
Location: SWMU 22
Date: December 3, 1992



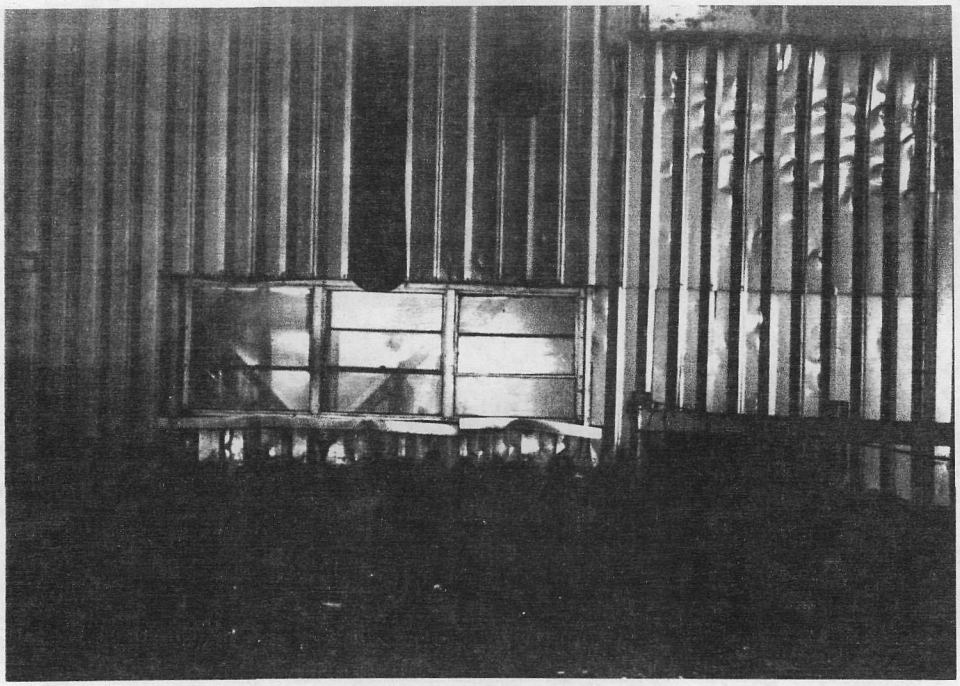
Photograph No. 23
Orientation: Northeast
Description: When necessary, additional hoppers are used for asbestos insulation disposal.

Location: SWMU 22
Date: December 3, 1992

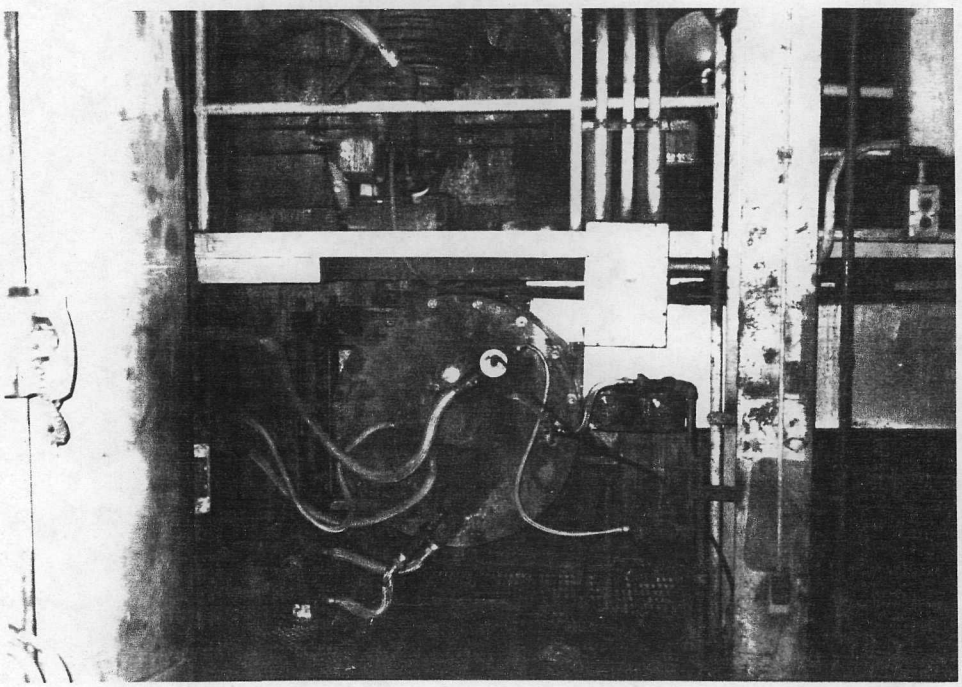
Photograph No. 24 Location: SWMU 23
Orientation: South Date: December 3, 1992
Description: Central laboratory wastes are accumulated in 3-liter polypropylene bottles at this unit that are then emptied into SWMU 7.



Photograph No. 25 Location: SWMU 24
Orientation: Northwest Date: December 3, 1992
Description: Wastes from the Bailly Station laboratory were accumulated in this unit in drums. The water on the concrete floor is the result of cleaning activities, associated with Boiler Unit No. 8.



Photograph No. 26 Location: SWMU 25
Orientation: South Date: December 3, 1992
Description: Inert material and scrap coal that do not pass the coal crusher are discharged through the chute to this unit.



Photograph No. 27 Location: SWMU 27
Orientation: North Date: December 3, 1992
Description: Boiler chemical cleaning rinsates are evaporated within the cyclone boilers of the boiler units.

Photograph No. 28 Location: AOC 1
Orientation: Southeast Date: December 3, 1992
Description: Empty drums from virgin oil are stored inverted on metal grates. Virgin oil is allowed to drain onto the ground surface. Note the stained ground surface left of the drums.

ATTACHMENT C
VISUAL SITE INSPECTION FIELD NOTES

Thurs 12/3/92

NIPSCO - Chesterton / Bailly

Pat Tanski and Dave Styf

Dale Helmers

PRC

Keith Fossee

Jeff Swano

9:20 Explain Purpose of VSI

Pure Air - 1990 — present

Leases land from NIPSCO

Contractor to NIPSCO

Has own WWTP that mixes w/ NIPSCO's ww after treatment at outfall 001, No storage capacity, at mixing point. Sludge from Pure Air WWTP to LaPorte County landfill.

KJF

Thurs 12/3/92 East Chicago

U.S. Gypsum receives gypsum product. Pure Air owns and operates equipment since 6/2/92. NIPSCO responsible for all influents and effluents of Pure air system. Air Products owns Pure Air and Mitzubishi.

(Electrostatic Precipitators)

- ESP Hoppers

Unit 7 and Unit 8 goes to Fly ash silo wetted or dry, Michigan Ash, for reuse or landfill.

- Sanitary WWTP

all sanitary water for

KJF

Thurs. 12/3/92

facility. Pump sludge tank 2x12x8 deep, used to go to PITW (Hims) per log, local septic hauler takes to PITW in Valpo or Gary. WWater goes to settling ponds from outfall 001.

CSA Central Lab.
North and South.
Stoddard Solvents.
trans - Safety Kleen, Bolton IL
TSD - ?
N-butyl alcohol ~~F003~~ K97

Waste oil tank North of Coal Handling Maintenance
- maintenance of heavy equipment

KPS

Thurs 12/3/92

Plant Waste Oil Tanks and sumps, aboveground tanks, oil brought to sumps in buckets or drums. pumped out periodically to tanks. (fractionator)

Frac tanks 20,000 gall, portable tank,
1st rinse of water side of boiler tanks usually hazardous if went to Frac tank, about 6-8 tanks generated per cleaning, acid rinse 1st 2 tanks passive rinse - basically water hauled off site if necessary when full they are sampled

KPS Chem Clean Inc. 1 Stony Island Ave 60617 Chicago
~~Clean Harbors, Calumet City~~
trans - Mr. Franks Inc.

KPS

Thurs 12/3/92

Chem Clean - treats waste.
Remaining tanks were evaporated into an operating boiler, injected into firebox for disposal.

FGD Sludge from Pure Air WWTP, LaPorte County landfill,
Stored until permission granted for landfill disposal,
removed in 9/92 from 6/92,
→ stored in pile on bare ground.

Fly ash So. of Coal Yard.
Staging area for cleaning of boilers, ducts
1986-92 intermittant use,
when fire side of boiler cleaned, vacuumed ducts, etc., sealed off for landfill.

KJZ.

Boiler Sump, boiler room plant sump, floor drains from respective facility (unit 7 or 8)
receive waste from turbine room sumps also. process wastes, filter backwash, demineralization waste, slag tank overflow. pumped out to settling ponds

1000 gallon Central lab UST never been used, intended for drainage from lab - solvents separate

550 gallon UST - (waste oil) diesel engine, gearbox, same as waste oil tanks. probably are not leak tested (#32 and 27)

KJZ

Thurs 12/3/92

elevation 41 SAA (boiler room)
within a cabinet, 55-gallons,
* waste solvents,
used to 7/92
Stored at old Central lab then
went to new central lab CSA

labs - one at each facility and
Central lab for all 4 NIPSCo.
facilities at Bailly

WWTP - built same time ~~lined ponds~~ that ponds were lined. KJF
- Ponds are rarely pumped
out, don't remember where
sludge was put.
- intermittently used

Forebay - used to direct/recycle
~~used~~ KJF

KJF

Thurs 12/3/92

water from ponds and WWTP

Landfills - unsure of demensions
and locations.

PCBs - 10 remain in switchyard.
Will remove PCB from
transformers in the future.
Company wide and have
not yet been to Bailly.
However, some PCBs have been removed.

History

gave us several pamphlets
regarding history,

They will send info on Ground
water, Geology, Climate, etc.

KJF

Thurs 12/3/92

Security - guard/gates. fence
8-foot w/ barbed wire.

180 employees sound the clock
operations dept 2-12 hour shifts.

1986 - admin building added to West side of facility

1235 Broke for lunch.

1330 Return from lunch

1350 Tour w/ Dale and Pat

1400 Old CSA Central lab
drums stored in current
KDF

Thurs 12/3/92

out on pad (not true see 15:22) KDF

P1 South E
12 x 25
9" thick concrete
off NE corner of pad
like a drain

P2 14:06 West
Landfill
background WWTP
about 2.5 acres,
landfill could be much
larger, maybe 20 acres
now roads, unsure of history.

1413 P3 North
Landfill #13 on list.

WWTP not in use
KDF

Thurs 12/3/92

1420 P4-Stop of Clarifier/ trenches throughout ~~the~~ WWTP that go to a sump that goes ——

1426 P5 North-Fordney

1427 P6 West Secondary 1 & 2

1430 P7 South Secondary #2

1435 P8 East Primary # 1 slight oil sheen Venetian color on shoreline, wetland type plants growing in pond.

KJA

Thurs 12/3/92

1438 P9 Bottom ash pond P10 ~~Pond~~ bottom ash pile ~~Northwest~~ Bottom ash given to Indian DOT for road fill

1447 P11 Fly ash South of Coal handling, NE very dry, dumped on ground (CPS) Combined Plant Services handles it.

1450 P12 East FGD sludge pile

1455 P13 NE Asbestos hoppers (temporary) KDA

P14 E Asbestos hoppers in fenced area, 6 foot Barbed wire.

KJA

1500 P15 SE Empty drums: virgin oil, reconditioned drums, #31 gasoline UST drums stored upside down until pick up, return for deposit.

1510 P17 550 gallon UST Fuel from Unit 10 floor drains. Leaker, used for high power demands, old soak pads and socks all over floor of unit 10, disposed of

1520 Former GSA - Central Lab 1 1/2 S. drums stored on pallets, used 82-90 KAT

B22 Steve Barnes
Supervisor - C Lab
old Central Lab GSA drums were stored on pad not in cabinets, from spring 81 to summer 82.
also drain at NE corner was a lift station for bathrooms sewage to Santana WWTP.

EPT (virgin solvents stored in cabinets not locked)

Wastes
tests on oil samples, insulating oil, lub, hydraulic, waste contains
50% unused oil
20% stoddard solvent
10% toluene, methanol, isopropyl butanol (all mixed)
2-3 drums per year of mixture waste stored in 3 liter poly containers, transfered KAT

Thurs 12/3/92

to drum stored on CSA. usually take couple dozen poly containers at a time, so stored on book shelf type area til then.

UST never used capped in 1987

1535 P19 South SAA book shelf of used oil/solvents mixture.

1536 P20 CSA Cabinet N- not locked containment area for 1 drum Used 1990 to present 91 got cabinet 90-91 used pallets, same location.

T97

Thurs 12/3/92

1537 P21 CSA and UST never been used North

Sewage Treatment Plant
- surge tank 10 g/min
- intermittent aeration
- aeration chamber
- clarifier - 2 cones activated sludge returned water goes thru lift station to slag pond/Bottom ash pond
- after clarifier goes to sand filters
- backwash goes back to head of plant.

1545 P22 North outside
P23 North inside TP

T94

Thurs 12/3/92

ESPs - fly ash pneumatically piped to silo.

1610 P24 oil storage room sump
P25 and trench drain, both pumped out periodically to ~~45T~~ above ground Plant tanks (2), #6 on list

1615 P26 West UST, removed #25 on list.
Howard Kuritzky - Pure Air

1632 P27 about 200 gallon waste oil, gear box maintenance 220 gallons per 1 year, Safety Kleen, ~~Bedford~~ Portage, IN. trans/TSD

KJ.7

Thurs 12/3/92

1640 WWTP Pure Air
20 tons/month of filter cake, press drops cake into 40 yard hopper, WWTP contains solids removal, pH, coag/floc, settling, - sludge to presses no other dewatering.

P28 North - press and hopper

1645 P29 SE - ash silo chute

1650 P30 East (2) waste oil tanks over containment, contain oil.

1655 P31 Elev. 9 oil/sumps N pumped out periodically to above

KJ

74 Thurs 12/3/92

1655 P32 E Unit 8 sump #24
bottom ash/slag
molten mixed with water
to ~~cool~~ KJ7 then pumped
out to slag pond.
receives all floor drains also.
Water pumped out separately to Primary 102

1703 P33 West
Waste oil / Maintenance garage
3 to 4 weeks old in
containment, oil stains (2)
on containment and ground

1710 P34 North Maintance oil
sump, pumped out periodically,
about a couple inches of oil
S-K parts washer (3)
mineral spirits.

KJ2

Thurs 12/3/92 75

P35 ~ Coal scrap
pile some metal
pieces, spray can,
no containment -
bare ground, not known.

1720 P36 West, pond for
coal handling runoff.
pumped out and hauled away
not known

1726 P37 NW, SAA, turbine
floor ele. 41, not used,
cabinet, slight containment caps.
Unit 7
Bottom ash (molten) is sluiced
w/water and goes to slag pond.
water, different from above (floor drains)
goes to primary 101 or 2

KJ2

Thurs 12/3/92

Machines leak oil into floor drains → Primary 1 and 2, oil dry on floor

Noncontact cooling water tanks open, not bermed, trench drain about 10 feet in front of open tank, may stop release from going into noncontact cooling water.

1745 P38 N. Unit 7 boiler, 1 cyclone boiler; unit 7 has 4 ○ ○ ○ ○ 10 P38; unit 8 has 8,

1755 Return for tour - hold Exit meeting, Dale will send info regarding waste handling

KJ

1810 Leave Site (bout time)

Borders:

S - Bethlehem

E - Indiana Dunes Lakeshore Canning

N - Lake Michigan

E - Bethlehem

temp ~30°F, partly cloudy, breezy, very dark

KJ

Thurs 12/3/92